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ST. LOUIS
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E. M. NELSON, M. D., Ph. D., Editor.

IN CONJUNCTION WITH

D. G. GAMBLE, A. M., M. D., W. G. GLASGOW, A. M. M. D.

AND

G. A. TODD, A. M., M. D.

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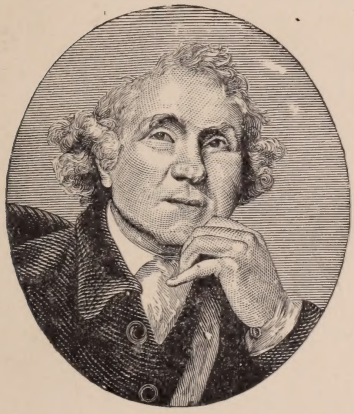

John Hunter

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ORGINAL ARTICLES.

ECLAMPSIA PUERPERALIS.

BY DR. ELIAS RECTOR DUVAL, FT. SMITH, ARK.

Prepared to be read before the Ft. Smith Medical Society.

IN obstetric medicine no complication awakens greater or more vital interest than "Eclampsia Puerperalis."

In essaying to present a few thoughts upon this subject I am not unmindful how vast is its literature, how many able, valuable and seemingly exhaustive dissertations concerning it are to be found in the monographs, and in the approved works on obstetrics of the day.

With equal force, if this be an objection, might be averred that there is no disease, accident or other pathological condition to which humanity is prone, but has been learnedly discussed by the bright lights that shed such lustre and fame upon the profession. Ever since woman first entered upon the discharge of her exalted prerogative of childbearing, eclampsia puerperalis has ranked as a fell factor in the destruction of human life. Its clinical history, therefore, is coequal with the earliest record of man. Its etiology, pathology and therapeutics must necessarily have at least a summarized consideration, in order that practical benefits to us may ensue from its discussion.

Its etiology is of necessity grounded upon the pregnant state,

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or conditions engendered by it and dependent thereon. This proposition is axiomatic, and no other eclamptic manifestation, however closely simulating it, could be by even a tyro in diagnostic differentiation confounded therewith.

It must not, however, be inferred by this statement, that by the wiles of the vicious or the machinations of the wicked in the interest of cloaking shame, one might not be led away from the truth and fall into error.

Led by such writers as Lever, Braun, Frerichs, the profession many years ago (as early as 1843) accepted very generally the apparently conclusive uremic theory of its etiology and pathology; in other words they held that the albuminous urine, so constantly found in eclampsia cases, is the key to the pathology. Unquestionably the almost uniform concomitancy of this complication was a strong point for those who claimed that the retention of effete urinous elements was the *casus morbi*.

An analogy in the *morbus Brightii* of convulsions superinduced by uremic saturation, seemed to fix beyond cavil or objection that Lever, Braun and Frerichs had really discovered the actual nature of the malady.

Frerichs, after a time, finding that his theory of retention of *urea* was not wholly tenable, then claimed that the real toxic element was carbonate of ammonia, resultant from the decomposition of the urea in the blood; and many experiments were performed to determine that this chemical agent when injected into the veins of the lower animals actually produced convulsions. Dr. Wm. A. Hammond, then of Baltimore (1861), demonstrated by counter experiment that urea is never decomposed in the blood into the carbonate of ammonia, and that uremia is never begotten in this way.

Spiegelberg, by a well conducted series of experiments, seemed to demonstrate the accuracy of Frerich's theory, yet not many to-day accept it without question or reserve. Some opine that toxic elements yet unknown in the blood are the real morbific agent or agents.

There are many clinical experiences to justify the non-acceptance of the Frerich's theory in its entirety, or even as presenting more than one of many factors in the production of the malady.

Thus Goubeyre states that out of one hundred and sixty-four women with albuminous urine when in the pregnant state, ninety-five were delivered without convulsions, and Blot reports thirty-four exemptions out of forty-one cases.

Even here in our own circumscribed field of observation, many cases having as high as 50 per cent. of albumen in the urine, have not only escaped eclampsia at parturition, but have actually been delivered without an untoward nervous manifestation. If time permitted local data demonstrating the truth of this statement could be produced.

It often happens, so at any rate has been my experience, that on examining the urine during the whole pregnant state and up to within a few hours of the parturient effort, there is no demonstrable presence of albumen by the most accurate tests; and yet, typical convulsions having ensued, $33\frac{1}{3}$ per cent. of albumen is found in urine drawn with a catheter immediately afterwards.

How would this state of facts modify the theory of actual dependence of the paroxysms upon uremia? Might it not be claimed that the convulsions caused or begat the albuminous urine, and not that it begat them?

The appearance of albumen in the urine, simultaneously with the convulsions, has led Braxton Hicks to formulate his views thus:

1st. That the convulsions are the cause of the nephritis.

2nd. That the convulsions and the nephritis are produced by the same cause, some detrimental ingredient circulating in the blood, irritating both the cerebro-spinal system and the other organs at the same time.

3rd. That the highly congested state of the venous system, induced by the spasm of the glottis in eclampsia is able to produce the kidney complication.

The Theory of Traube and Rosenstein is that which bases the whole cause upon an anemia which is a concomitant of the pregnant state.

This in turn begets arterial tension favored by hypertrophy of the heart, a state usually incident. The brain is first hyperemic, and this condition is succeeded by effusion, which pressing upon the minuter vessels increases the area of cerebral anemia.

This theory is supported by the experiments of Brown-Sequard who demonstrated that an anemic condition of the brain and nervous centres precedes an epileptic attack.

While there is in this theory much to commend for its ingenuity, and in many cases to accept without question, yet there are many unexplained difficulties to its acceptance as a finality.

That the vaso-motor centre is the seat of an unusual irritation there can be no doubt. Until the time of Andral Flaunens and Marshall Hall it was supposed that all nervous aberrations had their origin in the brain, and that such influence as the spinal cord exerted was of a secondary nature. It is *now* well and clearly demonstrated that physiologically the spinal cord consists of the medulla spinalis, medulla oblongata, pons Varolii crura cerebri and tubercula quadrigemina, the medulla spinalis being the true and great motor centre of the economy. Irritation of the spinal cord may be induced through the agency of the afferent spinal nerves—this constitutes the eccentric influence no doubt. That this irritation is the product or sequence of an unknown toxic factor seems clearly shown by most all the facts relative to the malady.

The excito-motor functions are keen and active in all pregnant women. Hence, irritation of the gastro-enteric tract and of the pelvic viscera that ordinarily would beget no unpleasant reactions, will arouse convulsive seizures of serious import.

Dr. Tyler Smith averred that the excitability of the nervous system during pregnancy was the main factor in the production of eclampsia. But this factor alone is not enough in every case or perhaps in the majority of cases.

There must be something else to play a role in the chain of morbific influences, and this something else is likely the unknown toxic element floating in the vital fluid of which casual mention was made above.

That there are cases occurring frequently having only an eccentric origin there can be no doubt.

Thus, an overloaded stomach or bowels filled with undigested irritative and irritating ingesta, a bladder replete with urine, etc., etc., may and often does beget eclampsia in the prepartu-rient, as well as the parturient.

We may divide cases of eclampsia into two groups:

1st. Those of eccentric origin.

2nd. Those of centric origin.

Formerly it was convenient to classify them into the apoplectic, uremic and epileptic.

Now the apoplectic is not as frequently mentioned as a condition separate and distinct from the others.

The epileptic is deemed the typical manifestation, and those who would portray the disease describe it as epileptic spasms of a peculiar form. While it may seem rash to question the correctness of an approved nomenclature, I must submit in deference to my own experience that the division into apoplectic, uremic and epileptic is strictly verified by clinical data.

The distinctive features of each are not always markedly pronounced. Indeed they may often be so merged that no diagnostician, however expert, can determine which form is most prominent.

Yet it is important from a therapeutic standpoint that there should be well defined views upon the pathology of each case, otherwise a haphazard treatment would ensue, jeopardizing alike the life of the patient, and the reputation of the accoucheur.

In no professional experience is there greater need for the exercise of a calm, considerate discretion than when confronted by such an exigency in the lying-in chamber.

The attendants and friends are in an excited state, and the obstetrician must be in full possession of his faculties; otherwise he is the servant, not the master, of the crisis.

Like all other diseases eclampsia needs a treatment, not of routine, but based upon reason.

Of course opportunity is not given in every instance for the exercise of preventive measures, but where such is given, in what does it consist? Holding that uremia is a factor of no inconsiderable import, the urine of the patient should naturally be subjected to close analytical interrogation.

The frequency of its examination should be determined by the physical and rational signs of the albuminuria. Prudently it might be analyzed in the primipara every week.

The practical utility of such analyses is evident, inasmuch as

the result of such investigation is to form the basis of the prophylaxis.

Having determined the abnormal urinous element, what precautions are at once to be taken? Eliminate the urea from the blood through the various emunctories.

How is it to be accomplished? The skin is to be stimulated to diaphoresis; the bowels are to be excited to more frequent action; the kidneys are to be encouraged to free duty.

Diaphoresis may be readily secured by putting the patient to bed, and wrapping hot bricks, and boiling hot corn in the ear, in thick cloths (to prevent burning the surface), and placing these around the body. In connection with this, fluid extract of jaborandi may be given in full doses with confidence that its diaphoretic properties will not disappoint.

I remember a case a few years ago where pilocarpine gr. $\frac{1}{10}$ was given hypodermically, and in less than five minutes there was profuse diaphoresis and salivation.

It was so marked in its influence as to excite great surprise in all who witnessed it.

There are other agents whose tendency to act upon the skin is quite uniform and efficient. Still, none have in my hands proven so satisfactory as the steaming and jaborandi, or its active principle, pilocarpine.

It is claimed by many that pilocarpine is an abortifacient, and should not be used in the pregnant state at all. While such may have been the experience of others, mine leads to a different opinion. Nevertheless, I would *not* pass unnoticed or unstated its properties in this particular as claimed by others.

The salines, such as the salts of magnesia soda, potassa, etc., may be used for their joint action upon bowels and kidneys. Digitalis in infusion or tincture, or in combination with squills will prove quite satisfactory as diuretics. The fluid extract of digitalis seems to possess diuretic properties so feebly as to make it practically useless.

Scoparius, iron, spirits of nitre are also of much benefit in this relation.

The influence of the combination of iron and spirits of nitre is so pronounced as to justify its soubriquet with some—kidney cathartic.

The albuminuria, always so marked in anemia, is to be overcome or antagonized by iron and chlorate of potassium, as in the formula of Dr. Fordyce Barker.

In this last feature of the effort to overcome anemia, and put the system in a state of health or an approximation thereto, it it must not be forgotten, or overlooked, that an out-door life, walking or riding, coupled with cheerful company and nutritious alimentation, is the strongest factor in prophylaxis.

Even where feebleness forbids open air exercise, open windows with pure atmosphere pouring in will invigorate and tend to restoration. Now having systematically endeavored to rid the system of the uremic complication, and failed, or at least partially so, the albumen still persistently showing itself in the test tube, what is to be done?

Here is a question the solution of which will tax to the utmost the skill and courage of the obstetrician.

A consultation under such a contingency is advised.

The responsibility is too much to be borne alone. Of course the only point for discussion is: shall labor be induced?

In the discussion of this, we must determine.

1st. What proportion of albumen exists in the urine?

2nd. What is the status of the brain, the nervous and vascular systems?

3rd. What is the condition of the functional operations of the digestive system?

If the proportion of albumen exceeds 40 per cent, and the brain and nervous system give evidence of a perturbed condition due to the toxic element of urine, with an enfeebled state of the powers of alimentation and nutrition, then interference is clearly indicated and should at once be essayed. Some might conclude that not less than fifty per cent albuminous urine would justify the induction of premature labor. As to this opinion there could be no fixed rule. The actual evidence of the toxic influence pronouncedly operative and rising to the danger line would be more conclusive than a fixed ratio of albumen.

Bloodletting has been handed down from the fathers, and has therefore the sanction of age—'tis indeed classical—and for

many years no accoucheur dared to question the propriety of it.

This therapeutic view held the profession in bonds until the new theories began to assert their power, forty years ago.

Venesection was then decried and measurably abandoned. Chloroform, sulphuric ether, potassium bromide, chloral, morphia and such like agents of sedation, came to be the fashion. A reaction has been taking place for a number of years in favor of the sanguine practice. To-day it is probable that three-fourths of the teachers and writers on obstetric medicine claim this to be of the first importance in the proper treatment of *eclampsia puerperalis.*" Like everything else that is good in its way, it is apt to be abused by its advocates. No agent has been more harmful than this, and none has more certainly conserved life. In advocating its judicious use I base such advocacy upon an experience with this formidable complication quite large, for one having comparatively a circumscribed field of obstetric observation. By judicious use I mean that every case must be a law unto itself. If, after proper interrogation into all the conditions, venesection seems likely to accomplish the staying of further manifestations, it should be with freedom and fervency essayed. The effect, not the quantity, should determine when to stop.

My plan has been to bleed until a very decided impression was made upon the circulation. Bleeding before delivery is by most authors deemed sufficient; and this is doubtless a correct position, provided the work has been at the first well done—bromides with chloral, morphia and chloroform afterwards, being the main reliance.

In assuming that probably eight out of every ten cases of the centric type need to be bled, I but echo the sentiment of most of those whose experience gives them the right to entertain this view.

Chloroform is an agent here of potential influence, and can be used with much confidence in lessening the violence and the length of the "spasm." It has probably *no* curative property, is adapted only to the emergency of the paroxysms. Choral is highly commended upon the theory of its power of lessening cerebral hyperemia and of checking or holding in abeyance re-

flex action. It seems strange that this latter quality in this drug has been challenged by so eminent an authority as Dr. Fordyce Baker.

The bromides, with chloral, have their place and an important one too. Still in many cases the difficulty of their administration to a semi-comatose patient in a measure negatives, an attempt at their exhibition by the mouth at least. This objection does not apply with equal force to their use per anum.

Calomel rubbed up with butter and placed on the back of the tongue will subserve an admirable purpose when a purgative is needed.

Morphia hypodermically is an agent of great good and should rarely be omitted. Upon grounds theoretically seemingly tenable opiates were discarded, and until a few years ago were not given. Now experience clearly demonstrates their value. Morphia, probably the acetate, is given by the syringe *pro re nata*, and no agent will more certainly fill the measure of your expectations.

For diaphoresis, and as a salivary excitant pilocarpine has no superior, and in the uremic type the skin should be excited to free action, thus contributing largely to freeing the system from the toxic element.

These are the leading therapeutic agents. Others of like or kindred character, doubtless, you may use; and the measure of your faith in them will be proportioned to your success in their use. One question should be ever uppermost in the treatment of this complication. Have we here spasms of the centric or eccentric type? The answer to this will necessarily determine your therapeutics.

THE MEDICAL PRESS OF WESTERN NEW YORK is a new competitor for favor in the field of medical journalism. It is very handsomely printed on excellent paper with superior illustrations. Dr. Roswell Park, of Buffalo, formerly Chicago editor of the *Weekly Medical Review* is the editor. We are glad that the doctor has resumed editorial work and wish him the best of success with the new journal.

CONSERVATISM IN MEDICINE.

BY A. J. BEST, M. D., CENTRALIA, KAS.

[*Read before the Northern Kansas Medical Society.*]

IN preparing an article for your consideration I have thought that perhaps at the outset of our career as a society, a few thoughts that would provoke discussion, and outline our policy and the object of our coming together, would be more advantageous than any article which I could prepare on professional topics, which have been discussed and elaborated by men whose attainments entitled them to the rank of "Master."

I would not for a moment be understood as discouraging original investigation, nor would I disparage the many papers which will doubtless be read here, upon subjects that have apparently been exhausted, but which will again be presented to our view in shades and colors new and bright to very many of our number; nor can I forget the many illustrations of men in obscure places, who have become leaders in their chosen calling, and shining lights through their indefatigable industry and careful methods. But to the average practitioner it is not given that he be a leader but a follower.

Nor do I think it is the object of this society to mark out new paths, to formulate new ideas for the profession, but to familiarize its members by study and discussion, with the latest and best ideas of the great teachers, to lay before each member our every day experiences, our triumphs and our failures, to receive and give advice, to report anything of interest that may occur in our chosen work, to strengthen and uphold each other, to sharpen our wits with contact, in order that we may avoid the rocks and shoals of materia medica, and may become more tolerant and liberal, and may show to the country that we are in earnest and are seeking the greatest light, that we have set up as our standard the great and noble principles of rational medicine, founded on anatomy, physiology, pathology and therapeutics.

Above all we maintain that having set up such a high standard we are willing to devote our time, money and talents to de-

velop it, and to take advantage of every particle of experience that our brethren may have to offer.

Although the foundation of the practice of medicine is anatomy, physiology and therapeutics, they are only the foundation. The superstructure has been raised by infinite toil and hard earned experience. For thousands of years we have been experimenting and studying, each investigator taking for his starting point the recorded experience of those who have gone before, culling out that which was good and discarding that which further investigation showed to be fallacious. Thus has the system of rational medicine grown, absorbing all that experience proved to be beneficial, and rejecting the superstitions and fallacies of minor sects and schools.

He must be a bold man, indeed, who would voluntarily throw away the united experience of all those years, for some pet hobby which he may have devised. The teachings and experience of the great masters are the common ground upon which we all must meet, and they furnish to us the only safe path on which to tread. It is required of us by the laws of our land that we follow these landmarks and bring to the bedside a thorough knowledge of those precepts which are approved, and neither the conscience nor the common law will hold that man guiltless, who may neglect any opportunity to familiarize himself with those teachings.

Dr. McClelland in "Civil Malpractice" says: "A careful consideration of the foregoing observations will show that the degree of learning and skill, which the physician and surgeon holds himself out to possess, is that degree which is ordinarily possessed by the profession as it exists at the time, or contemporaneous (ly?) with himself, and not as it may have existed at some time in the past. It follows, then, that the standard of such ordinary skill may now be in advance of what it has been in the past, and according to the general and material progress made in the science of medicine and surgery, the standard of ordinary skill which is required of any physician and surgeon, it will be borne in mind, is that degree and amount of knowledge and science which the leading authorities have pronounced as the result of their researches and experience

up to the time or within a reasonable time before the issue in question to be determined is made. And such physician and surgeon must be held to apply in his practice what is thus settled in his profession." "That which is pronounced as settled in any profession by the leading and standard authorities therein, is within the reach of any practitioner, and his being such practitioner presupposes the fact, and is guaranty on his part, that he is in possession of a knowledge of it as so settled. And the physician impliedly contracts with those who employ him, that he has such skill, science and information, as will enable him properly and judiciously to perform the duties of his calling. Not the highest degree of skill and science, but only such reasonable degree as will enable the person safely and discreetly to discharge the duties assumed.

A physician is expected to practise according to his professed and avowed system. The homeopath is not supposed to understand, nor to practise, as does the regular physician. He is employed as a homeopath, another as a Thompsonian or hydropath, and each is bound to practise according to the tenets of his school.

How utterly unworthy then, and how unlawful then, are those quacks who advertise to practise any system that suits the patient."

I infer from all this, that the average practitioner is required to understand and follow the teachings of "the Masters," and that he be not led away by every plausible theory, or new discovery until it has been well tested and proven by those who have the facilities for investigation. And this is well, although in some instances it may be true that the teachers have clung too closely to pet theories. But we must accord to men, such as Flint, Bartholow, Bennett, Reynolds, and others, honesty of purpose and preeminence of ability, and above all facilities for investigation that are beyond the reach of the ordinary practitioner. How futile and preposterous, then, are the pretensions of those would-be authors, who are continually airing their ideas in penny journals, and, as is sometimes done, ridiculing the teachings of such men as those above named. Judge Story in delivering an opinion on a certain case makes use of this

remarkable language: "It is to be lamented that so many of our citizens are disposed to trust health and life to novices and empirics, to new nostrums and methods of treatment. But these are evils which courts of justice possess no adequate power to remedy. Enlightened public opinion and judicious legislation may do much to discountenance quackery, and advance medical science."

May I repeat, in conclusion, the great object of our society, as it seems to me, is not innovation. We do not expect to found new theories, to establish new practices, but to assist each other in thoroughly understanding the doctrines and practices of our profound system. By social intercourse and friendly attrition we shall lose the egotistical and intolerant, and when we return to our homes from this meeting let us go with renewed courage, and with zeal inspired for more thorough and more conscientious work.

FISTULA INTO THE MASTOID CAVITY.

BY CHARLES A. TODD, M. D., ST. LOUIS

[*Read before the St. Louis Medico-Chirurgical Society, Nov.* 17, 1885.]

IT is not so very many years since the time when the family doctor was wont to advise the mother, anxious about her child with a discharging ear, to let it alone, that it would get well of itself. Possibly, even at this day some reputable physicians may be found who will give the same advice. A better knowledge of the anatomy of the ear, and of the true nature of a chronic suppuration, would prevent such a gross mistake. It is not necessary to dwell upon the fact that the suppurative process is a destructive one; but as anatomical details, particularly in respect to that most complicated cranial bone, the temporal, are apt to slip the memory, I will call attention to a few of these details. There is no other part of the body approximating in dimensions the tympanic cavity of the ear, that is so closely related to structures whose implication in disease may result in the most serious consequences. The internal carotid artery, the

great lateral sinus of the dura mater, the internal jugular, the facial nerve, the labyrinth, the meninges of the brain, and the brain itself, all these may be invaded by inflammation originating in the tympanum. To allow suppuration of the ear to take its own course, therefore, invites erosion of the wall of the carotid, phlebitis of great venous channels, facial paralysis, entire loss of hearing through necrosis of the labyrinth, finally, meningitis and brain abscess. All these lesions have been more or less frequently recorded as sequelæ of suppurative otitis media. A dismal catalogue! Even under the most assiduous and competent treatment, these fatalities may occur; and, as is known, the existence of such an otitis has been considered to render an applicant unfit for life insurance.

The dry method of treatment of suppurative otitis, which is now widely adopted, has robbed this disease of much of its old reputation for obstinate resistance to remedies. Still, on account of the peculiar character of the tympanum, it being partially filled up with the ossicles and their muscles and ligaments, besides containing cellular cavities, and opening into the extensive air cells of the mastoid process, a suppurative inflammation may persist through foci of disease very difficult to reach. This is especially true of a form of suppuration attacking the upper and posterior part of the tympanum, the consideration of which lesion is the object of this paper.

The upper part of the membrana tympani above the short process of the malleus, is filled by a structure differing from that organ by its laxness due to absence of the proper fibrous tissue layer that characterizes the membrana tympani; hence it is called membrana flaccida, or Shrapnell's membrane. The membrana flaccida consists of the mucous and dermoid layers only with scattered fibres between; hence it yields readily before pressure of accumulated secretion, and ruptures, leaving an opening which allows the probe to enter the space above the level of the short process of the malleus, a space most favorable for obstinate inflammatory processes for the following reasons: It contains, first, a variable number of small cellular cavities between the membrana flaccida and the neck of the malleus; here, also, is the head of the malleus with its superior liga-

ment; posterior to this is the entrance into the congeries of mastoid cells, the antrum.

All these structures are contained in a very small area. Now, suppose the mucous membrane of the tympanum, which envelops all the contents of that space more or less completely, to be swollen through congestion; and, in addition, adhesions crossing the tympanum, either largely cutting off sections of its cavity by their extent, or drawing and holding the membrana tympani against the inner wall—all these conditions are frequently enough seen as the results of chronic otitis media.

It will be easily recognized that with such contractions of the tympanic cavity, inflammation may long persist in its upper posterior section with a perforation through the membrana flaccida, or through that and involving a part of the membrana proper as well. Sometimes such an opening by reason of close adhesions of the membrana below, communicates with the external meatus alone; its normal connection with the tympanum and Eustachian tube being thus entirely cut off. We might say in such a case that two tympanic cavities existed, one connecting with the mastoid cells, the other with the Eustachian tube. Such lesions are very persistent; when the discharge ceases and all seems well, so far as inflammation is concerned, the old trouble is liable to recur upon taking cold, or upon general ill health.

This condition of the ear we may fairly call a fistula, since the perforation of the membrana tympani enters directly into a diseased passage which terminates, most probably, in the extreme cases described, in the mastoid antrum: the bent probe enters freely, and as far as it can be passed, the narrow meatus not admitting much of a bend.

A fistula of this nature may be overlooked if the surgeon be not on his guard; opening, as it may do, very obliquely in the upper posterior wall of the auditory canal and at its very bottom, he may be puzzled to account for the persistent accumulation of pus in the ear. Irregularities in the collapsed membrane may deceive him for a while, as the Eustachian tube is impervious to air and that aid to diagnosis is lost. A bent probe must be passed over the just described region, and its point sinking into the hidden opening betrays the source of the discharge. Not

infrequently to further complicate matters, a small polyp overlies the spot, just as granulations may conceal a fistula on the surface.

The treatment of such fistula, or rather of the suppuration to which it gives vent, is one of the most troublesome problems of otology. In the worst cases we clearly can not hope to reach directly the seat of disease; we can not even guess its extent. It may be confined to the tympanum or may have invaded the mastoid. There may be necrosis of the ossicles or of the bony walls. In fact the surgeon must often content himself with observing the course of treatment and leave a suppositious diagnosis to be formed in its course.

The treatment must be specially adapted to the peculiar nature and site of the disease. Evidently reliance solely upon the dry method, so effective in ordinary suppurative otitis, would be futile. The diseased cavities must be searched out by remedies in solution. We can not hope even to cleanse the parts without water, if they be far distant from the membrane. Should the inflammation be confined to parts within reach, the probe, armed with absorbent cotton can be used to cleanse, and afterward charged with a solution to medicate. In some cases this will suffice. But when deeper regions are affected, the middle ear syringe must be used both to wash out the cavity and to apply solutions. A number of years ago I devised such a syringe and have found it to work satisfactorily. It has the recommendation of simplicity as well as of effectiveness.

It is hardly necessary to add, after explanation of the topographical anatomy of the region, that the treatment of such fistulous disease is naturally uncertain in results, the outcome being widely variant. It some cases the discharge may be stopped, and the parts regain a comparatively normal condition: in others treatment must be long persisted in, the surgeon being satisfied with keeping the ear in a fairly clean state and thereby warding off dangerous complications until the inflammation be entirely reduced.

DR. WM. H. COGGESHALL late of the *Virginia Medical Monthly* died September 7, 1885, of tetanus at the age of thirty-five years.

CEREBRAL SURGERY SINCE THE INTRODUCTION OF ANTISEPTICS.

BY H. H. VINKE, M. D., ST. CHARLES, MO.

ANTISEPTICS have brought about a wonderful revolution in surgery in general, and in cerebral surgery in particular. We can scarcely realize now with what reluctance the older surgeons opened the skull and resorted to the trephine in order to relieve the brain from pressure. To account for this great aversion to operating in injuries of the skull and its contents, it is necessary to look for the results which were secured by operative interference, and it cannot be denied, they were very discouraging. I refer here to the time which anticedes Listerism. In consulting even our modern treatises on surgery it is found that the mortality as a result of trephining is variously estimated at from 45 to 80 per cent. Without any claim to exactness, the above statistics are sufficiently accurate to show that trephining the skull was indeed a dangerous operation, and we can almost pardon Sir A. Cooper when he exclaims, that the surgeon should always operate with "the conviction that there is only the thinness of paper between eternity and his instrument." Since 1879, however, wonderful changes have taken place; since the time when the great Lister taught us how essential absolute cleanliness and antiseptics are to rational surgery, vastly better results are obtained. I will attempt to prove this in the following.

There is perhaps no one in this country who has written so well on this subject, and has given the same so much attention, as Dr. R. W. Amidon, of New York. His two papers, "A Plea for More Heroic Surgical Interference in Affections of the Brain," and "A Statistical Contribution to Cerebral Surgery," have perhaps done more to disabuse the surgeon's mind as to the danger of trephining, than anything I am acquainted with, and for most of the following statistical reports I am indebted to those two valuable articles.

Dr. Washam, in the St. Bartholomew's Hospital Reports

for 1882, gives an analysis of six hundred and eighty-six cases, in which the cranial cavity was opened and explored. Of these six hundred and eighty-six cases, four hundred and seventeen survived, showing a mortality of 39.3 per cent. Isolating those cases of *late* trephining, in which there were no symptoms of serious brain lesion present at the time of operation, and in which in all probability the operation proved fatal *per se*, only 10.6 per cent died. In the St. Bartholomew's Reports for 1883, the same surgeon cites eighty four cases in which the operation was undertaken for traumatic epilepsy: of these seventeen died, showing a mortality of 20.2 per cent. But he adds that if we except deaths following too long after trephining to be attributed to the operation, the mortality in these cases also would be reduced to about 10.6 per cent." (Amidon.)

In the Reports for the same Hospital for '84, only five cases of trephining are recorded, out of which one proved fatal. The same is as follows.

"Boy 14. Depressed fracture of right frontal region. Depression was elevated, and several comminuted fragments were removed. There was a laceration of cerebral substance. There was at no time paralysis. Was well until the twelfth day, when cerebral symptoms set in, and he died. On autopsy there was found a fracture of base of skull with considerable destruction of brain substance, and a layer of pus extending over base of brain." In this case the operation was evidently not responsible for the fatal issue.

In a paper published in the *Deutsche Zeitschrift f. Chir.*, 1884, Band XVI., Dr. Wiesmann has collected twenty-two cases, in which trephining for the removal of an intracranial blood clot had been undertaken; of these twenty recovered (*Medical News*, 1885, Vol. XLVII. p. 543). I am unable to say what was the immediate cause of death in the two cases which proved fatal, but granting that they are to be attributed to the operation, this would show a death rate of about 9.1 per cent. Dr. Amidon himself, in the papers above alluded to, gives an elaborate analysis of 115 in which the skull was opened, and at times the dura pierced and the brain itself explored, supposedly under antiseptic precautions; of these one hundred and

fifteen cases, twenty-nine died. By excluding all those cases which at the time of operation presented "symptoms endangering life," Dr. A. arrives at the conclusion that the operation *per se* proved fatal in only 3.2 per cent. Admitting that Dr. A.'s method of obtaining statistics is not absolutely reliable, they furnish sufficient evidence to prove that the operation of trephining the skull has lost many of its dangers since the introduction of antiseptics into surgery. I will, therefore, desist from adducing further statistics, particularly as they are of doubtful value, for it is exceedingly difficult to determine in a given case, whether the patient succumbs as a result, or in spite, of the operation, whether the operation proves fatal *per se*, or whether the patient dies from the injured and contused condition of the brain caused by the accident.

Enough has already been said to warrant the conclusion, that by carrying out intelligently and faithfully all the mechanical and chemical requirements of the operation, by performing the same properly and under antiseptic precautions, we have been enabled to reduce the mortality of trephining from forty-five to eighty per cent. to about five per cent. At any rate, from my investigations on this subject, I am convinced that the death-rate of the operation *per se* will not exceed this estimate. To remove foreign bodies, comminuted and displaced fragments of bone, and loose sequestra, all the instruments needed, as a rule, are the forceps, elevator, etc., and the trephine should not be employed, when a simpler operation will remove entirely the cause of irritation. The mortality of such simple operations is of course *nihil*. In speaking here of trephining the skull I mean the sawing out and removal of smaller or larger portions of the cranium, whether this be done with the trephine or some other instrument. Although such assertions as the above may at first appear extravagant and incredible, they become less so when we consider what an amount of injury the brain may sustain with apparent immunity. Without referring here to those cases of extensive injury of the brain, which have been so often quoted as to be familiar to every student of medicine, every surgeon will recall cases, occurring in his practice, where the brain substance oozed out of the external wound, at times in

considerable quantities, and still the patients made good recoveries. Then, again, it is well known that in lower animals whole sections of the brain may be removed without destroying life or seriously impairing the mental faculties, so that we are forced to accept, "that the brain shows a remarkable tolerance of injury and a tremendous reparative power." In view of such considerations, the timidity with which many surgeons resort to surgical interference in injuries of the cranium and its contents, is evidently not unreasonable and justifiable. On the other hand it would seem that, if it be done intelligently, the brain may be safely probed, punctured, incised, and explored to determine the presence of foreign bodies, collections of blood and pus, and it is the duty of the surgeon to remove these irritants, when they can be localized and removed with less injury to the brain than their presence would necessarily cause. And as they are almost certain to kill the patient sooner or later, it is evident that an operation for their removal is as a rule indicated.

I will conclude by enumerating some of the pathological conditions of the cranium and its contents, requiring trephining

1. For Cranial Fractures: The operation becomes imperative in all forms of fracture, where the symptoms are urgent and persistent. In simple and compound *depressed* fractures, with or without comminution, it is often advisable to trephine, even if no brain symptoms be present. In these cases the surgeon must be guided by the nature and extent of the injury.

2. For Intracranial Hemorrhage: Trephine and remove clot.

3. For Intracranial Suppuration: Trephine and, if necessary, puncture the dura and explore the brain, to give exit to pus.

4. For Foreign Bodies which have entered the cranium: Trephine and remove them, when they can be located.

5. For a Cicatrix, the result of an old fracture, Caries and Necrosis: Trephine and remove the morbid conditions, as soon as they excite cerebral symptoms.

6. For Intracranial Tumor: Trephine if the same can be localized and is accessible. The operation is of course contraindicated in all diffused injuries of the cranium, when the brain

already has sustained irreparable contusion and laceration, as in these cases it would be absolutely useless.

To be enabled to give a patient the benefit of the operation, whenever it is indicated, and to locate the exact point of irritation by the symptoms present, it is clear that a careful study of cerebral localization, and a thorough knowledge of the anatomy and physiology of the brain is indispensable to the conscientious surgeon.

This is a subject of great importance, for there can be no doubt that a vast number of patients with injuries of the skull and brain, and who might be saved, are allowed to die for the want of an operation. In the foregoing I have attempted to show that trephining the skull and exploring the brain has ceased to be a very serious operation and to point out the propriety, yes necessity, of timely operative interference in many affections of the brain. If I have succeeded in demonstrating this, the purpose of this paper is accomplished.

NATURE AND CULTURE.—We live in an age of education and culture, and we are apt to fall into the error of looking upon children as so much raw material, which can be moulded into any shape by means of training, like clay in the hands of the potter. This is a serious miscalculation which may be fruitful in vast mischief. Education can do much, but the limits of its powers are inexorably fixed by heredity. If a child possesses a brain small in size and poor in convolutions, all the culture in the world will not enable him to achieve results comparable with those which the naturally gifted can attain without effort. The diversity of natural talent is enormous, although the attempt to educate all our youth up to some arbitrarily fixed standard may serve to obscure this obvious fact.—*Brit. Med. Jour.*, Sept. 26.

CHICAGO WATER SUPPLY.—The city council of Chicago has provided for the appointment of a committee of five persons to investigate thoroughly and exhaustively regarding the questions of sewage disposal and water supply. An appropriation of $30,000 has been made for compensation and expense of the commissioners; and the report is to be made not later than Nov. 15, 1886.

EDITORIAL.

LICHEN RUBER.

Dr. Unna, of Hamburg, in a series of continued articles in the *Medical Bulletin* discourses on Lichen ruber. He says that our ignorance of much in connection with this disease is due to its rareness as well as to the custom of prescribing arsenic in all obscure skin diseases, thus modifying its natural history and obscuring the diagnosis, the agent referred to being in this instance well suited to the affection. He gives a number of cases from which he deduces several important conclusions.

The description of the size of the papules of lichen acuminatus, habitual since Hebra, comparing them to a millet seed, is according to him incorrect, a mustard seed being a better comparison, and even that rather overstepping the mark. The maculæ of lichen planus sometimes result from papules which are smaller than those of the acuminate form, being about one-half mm. in diameter. "The points absolutely diagnostic of lichen acuminatus are the squamous nodules upon a non-flattened elevation, and located upon the orifice of the hair follicle." It is compared to an "erythematous cutis anserina," the base on which these small red papules are seated being itself sometimes red. Intense itching is a constant accompaniment.

It is in these cases that Unna obtained the most gratifying results from an inunction composed of zinc ointment 500 parts carbolic acid 20, and corrosive sublimate, 1 part. The cure is also hastened by the use of arsenic sometimes combined with iron. When compared with Koebner's method of continued hypodermatic injections of Fowler's solution, the use of the above named ointment, even without the administration of arsenic, shows the

greatest superiority. Thus, while the former treatment will take about eight months to effect a cure, the latter will be successful in eight to fourteen days. Carbolic acid may be used with benefit in other ways, as lathering the surface with a soap containing that agent, and then wiping the surface dry. Gauze compresses saturated with equal parts of liquor plumbi subacetatis and glycerine are also of great use in acute cases.

The author, after observing that lichen acuminatus sometimes merges into the planus variety, goes on thus to distinguish a third form, lichen obtusus, intermediate between the two already differentiated. I mean those papules which, with a diameter of four to five mm., evince a wax-like transparency and which appear isolated and without scales * * * generally appear isolated and only here and there in spots sprinkled over large surfaces, and never found confluent as lichen planus, even if a number of the papules have accumulated on one spot * * * They itch only at the start. They are very stubborn, resist treatment, and have deeply brown, pigmented, somewhat depressed spots; * * * evince no intimate connection with the hair follicles," but are provided with a central pit. Here also the zinc, sublimate, carbolized ointment in conjunction with arsenic hypodermatically is the treatment *par excellence.*

Lichen is sometimes complicated with bullous lesions accompanying the typical papulation. The former sometimes simulates pemphigus, sometimes impetigo contagiosa. In one case the papules *changed* to vesicles.

In lichen planus is sometimes seen the development of whitish spots both at the periphery and centre of the plaques. These correspond to the sweat-follicles and are composed of several horny layers. In one case the lesions of lichen developed along the line of a previous trauma, thus simulating psoriasis papules which may be produced within previously determined limits.

Another recently discovered symptom of lichen ruber is a specific affection of the mouth "characterized by the appearance of

plain white lines or round spots on the buccal mucous membrane and on that of the tongue."

The author believes that external irritants have no genetic relation to this disease other than to determine its appearance in a given locality.

The following characteristic peculiarities are common to all forms of the disease: "They have a livid, bluish, or yellowish-red tint, a hard consistence, a peculiar dryness; itch more or less, and evince a peculiar tenacity and long duration."

The acuminate form generally begins acutely, with perspiration preceded by rigors, dragging pains, etc. Correct treatment can jugulate it. If left to itself "lichen acuminatus assumes a more chronic character. The nails become diseased, the hair falls out, general emaciation ensues, and after a duration of years, the individuals affected with it ultimately die either from general marasmus or from phthisis. Such a description would not apply to lichen obtusus.

The typical papules of lichen planus are described as flat or "dinner-plate like," that is, with a depressed centre and elevated margin, varying from six mm. in diameter to the size of a split pea or even silver dollar. Their surface is smooth and covered with a thin scale. "If they are spread over the surface, one occasionally observes here and there bluish-white spots of the size of a mustard-seed, which on careful removal represent milium-like horny bodies."

The writer reminds us that it is to the English we owe our knowledge of lichen planus as well as of impetigo contagiosa, morphœa, urticaria pigmentosa, myxedema, the filiaria, dermatoses, etc.

He finally modestly admits that his division of lichen will probably not be final, but is to be further supplemented.

RELATION OF SKIN DISEASES TO CANCER.

M. P. Lucas-Championniere in the November *Journal de Méd. et de Chirurg. Prat.* remarks that the relation between diseases of the skin and organic affections is yet very obscure, and the views of different practitioners vary much, for example when one observes a case of cancer of the stomach following a cutaneous affection of long duration.

In the other countries he thinks the authors are disposed to regard it as simply a coincidence; while French writers tend to the view that there is some relation between them, and Bazin considered cancer as belonging to the last period of arthritism. Observation does not permit the conclusion that cancer is the termination of this disease, however. That which appears to be demonstrated is that subjects affected with obstinate diseases of the skin, as certain forms of psoriasis and eczema, often have cancer among their antecedents. The opposite fact does not appear to be habitual and psoriasis is not often noted in the antecedents of the cancerous.

On the other hand surgeons have remarked that when a cancerous patient has had psoriasis or a persistent eczema, the prognosis appears more grave. Such are the facts which seem to be well established in cases of this kind. It remains to ascertain if there really exists, as has been said, a sort of balancing between the two affections, the second developing when the first is cured, a matter which is of practical importance, inasmuch as we should not then seek to cure the first. Now that which we see habitually is that if a carcinomatous affection develops, it is slowly and stealthily, but while the cutaneous disease still persists. That disappears little by little, but as both still coexist, one cannot attribute one to the disappearance of the other.

M. Besnier suggested these considerations regarding a patient in his service. This man was affected with a psoriasis dating far back but of such susceptibility that it was impossible to treat it with-

out causing new attacks. Some time ago digestive troubles devel oped which suggested cancer of the stomach, which is finally fully confirmed. One cannot then refer the cancer to the treatment, as in this case no treatment could be used. On the other hand the cancer dates back so far that it must have coexisted with the eruption, though this has completely disappeared for some time.

It would seem then that there is a relation between the two diseases though it can hardly be stated that the course of the first is influenced by that of the second.

SUNSTROKE AND HEAT EXHAUSTION.

Dr. J. M. DaCosta presented to the College of Physicians of Philadelphia at the stated meeting held October 7, 1885, a paper based on the record of fifty cases admitted into the Pennsylvania Hospital from the middle of July to the middle of August, 1885, and prepared by Orville Horwitz, M. D., Resident Physician at the hospital.

The following is given almost wholly in the words of the author of the paper only slightly condensing and abbreviating it:

There were twenty-four cases of sunstroke, and twenty-six suffering from heat and exhaustion. Of the cases of sunstroke, nine died. Three died within ten minutes after admission, and cannot fairly be said to have been subjected to treatment in the institution. Four died within six hours after admission; two, forty-eight hours after admission. Of the nine that died, four were hard drinkers; two were strictly temperate, and three drank in moderation. Twenty-one out of the twenty-four had violent convulsions; one had acute mania, lasting one hour and a half. The maximum temperature was 112° F.; this patient recovered. The minimum temperature was $94\frac{2}{5}$,° a case of heat exhaustion. Wednesday, July 22, nine cases were admitted. The thermometer on that day stood at $93\frac{1}{2}$° F. in the shade; on the two previous days it rose to 100° F. in the shade.

But two opportunities for post-mortem examinations presented themselves. In one case, which resulted in death ten minutes after admission, the temperature being 109° F., congestion of the lungs and kidneys was found with slight injection of the arachnoid and pia mater. In the other case, the individual dying two days after admission, there were the usual evidences of commencing meningitis.

The blood corpuscles were found shriveled in a few cases, but in the majority the microscope revealed no change.

Albumen was present in the urine in all but two cases, and this condition continued for two or three days after convalescence.

TREATMENT.—Antipyrin was used in all cases, in large doses, with the effect to keep down the temperature after it had been reduced by the application of ice, ice-bags, and ice-sheets to the surface; it was employed in the form of enemata, but the writer suggests that it would probably be more potent if used hypodermically. It was not resorted to unless the temperature showed a decided tendency to rise.

Musk seemed to be decidedly advantageous in controlling the violence of the convulsions; it was administered in doses of ten grains, and by the time the ten grains were given the convulsions, as a rule, ceased. This remedy was administered in sixteen out of twenty-one cases of convulsions, and in all these it was of marked and immediate benefit; the violence of the attack was rapidly abated and soon ceased to exist.

Aqua ammoniæ, in doses of five drops, repeated as occasion required, doubtless saved several cases, when the patient was about to die from heart failure, when the heart-sounds were indistinct, and when the pulse at the wrist could with difficulty be felt.

Ether hypodermically acted as a better stimulant than whiskey; administered by inhalation it controlled the convulsions, acted as a heart stimulant, and improved respiration to a marked degree.

Bloodletting.—One individual was bled from the arm to the extent of twelve ounces; he died two days after from meningitis.

Four persons were cupped at the nape, or behind the ears; about eight ounces were abstracted in each case. They all recovered.

The individuals in whom bloodletting was resorted to were all strong, full-blooded, heavy men, with injected conjunctivæ, the veins of their necks standing out prominently, the pulse being full and bounding, convulsions setting in early.

Dry cups, employed in the sunstroke cases, were valueless; but in those affected by heat exhaustion the benefit was well marked and immediate, the patient invariably regaining consciousness after their application.

Tincture of digitalis, in twenty minim doses, administered when the patient was first seen, acted as an excellent heart stimulant. The pulse at once became fuller and slower, the heart beating more regularly.

Quinine, used after antipyrin had caused the temperature to drop, was of marked benefit.

When the patients became conscious, calomel, gr. x, and bromide of sodium, gr. xxx, were administered—the latter repeated every third hour for the space of forty-eight hours, or longer, depending on the condition of the patient.

FATAL INJURY OF THE CAROTID ARTERY BY A FISH BONE LODGED IN THE PHARYNX.

At the Medical and Chirurgical Society, of London, a case was described of fish bone lodged in the pharynx, that ended fatally through penetration of the left common carotid. A boy, aged 9 years, six days after swallowing a fish bone entered the London Hospital. A probang was passed and he was sent home. Later, severe symptoms required his readmission. He had fever, stiff neck, profuse salivation, could not swallow solids; there was a tender lump opposite the cricoid cartilage. Hemorrhages from the mouth set in, when perforation of the carotid was diagnosed and the artery ligated. The fish bone was found in the clot at the site of the

wound. Ten days afterward the patient died from abscess in the left brain.

In this case no mention is made of laryngoscopic examination, a point so frequently neglected. It is possible that the bone may have been within reach of such examination before use of the probang, which naturally, if not removing the foreign body, would force it lower and, as in this case, drive it into the tissues.

Careful laryngoscopic examination is essential in all cases of foreign body in the upper pharynx. In the COURIER, from time to time, remarkable cases have been described in which, through neglect of this aid to diagnosis, patients have been allowed to suffer unrelieved for long periods of time, constantly being in danger of most serious consequences.

Not long since the writer had occasion to remove a splinter of bone lodged for several days across the pharynx, the point fixed anteriorly into the thyroid cartilage. The patient naturally had suffered much and showed it in her appearance. The relator of this fatal case of foreign body gave also an abstract of forty-four cases of wounds of blood vessels by foreign bodies introduced through the mouth: Thoracic aorta, twenty-two; carotids, twelve; pulmonary artery, one; heart and right coronary vein, one; vena cava, three; azygos vein, one; inferior thyroid vein, three; abnormal subclavian artery, one.

ELECTROLYSIS IN TREATMENT OF HERNIA AND HEMORRHOIDS.

DR. ROBERT NEWMAN read a paper at the recent meeting of the Fifth District Branch of the New York State Medical Association in which he reviewed the work done by electrolysis during the last two years. In a paper read before the American Medical Association, in May, 1883, he had reviewed the field up to that date, reporting for his own special contribution to that work a series of one hundred cases of urethral stricture treated by that method.

The only absolutely new application of electrolysis during this period, he said, had been made by Dr. Craft, of Cleveland, who had reported to him in a private communication his successful treatment of hernia by this means.

Dr. Craft states that the hernia should first be reduced and the sac carried up with it if possible. The index finger should be invaginated in the scrotum, and passed into or through the external ring, if possible, keeping the cord and sac, if the latter remains in the ring, well pressed to one side. Then having pricked through the skin over the external ring with a sharp pointed bistoury, he inserts a blunt pointed needle electrode, insulated to within a quarter of an inch of the end, carrying it well up between the ring by the side of the finger. The current from about ten good cells of a galvanic battery is then passed for six to ten minutes, according to the sensitiveness of the patient, changing the point from one side to the other of the finger always, so far as possible, keeping clear of the cord. The needle is connected with the positive pole, because the object is to excite an adhesive inflammation with a firm, hard cicatrix. Furthermore, he thinks the application is less painful than that of the negative pole. The patient should be in bed for two weeks and should then wear a well fitting truss for some time until the part becomes strong and firm. The cases operated upon were entirely well several months afterward, but time enough has not yet elapsed to determine what is the full efficacy of the operation.

In the treatment of hemorrhoids also Dr. Craft uses electrolysis. When he wants to cause absorption he connects the needle electrode with the negative pole, but with the positive pole when he desires to seal up the vessels by adhesive inflammation.

HYDROPHOBIA INOCULATION.

In the November *Journal de Médecine et de Chirurgier Patiques*, there is a brief résumé of the work done by M. Pasteur with regard to the prophylaxis and treatment of hydrophobia.

In June 1881, M. Pasteur demonstrated that the virus of hydrophobia is located specially in the cerebro-spinal system and that in practising the inoculation by trephining, one could greatly shorten the period of incubation of the disease. In December, 1882, he announced that he had found cases of spontaneous recovery from hydrophobia after the primary hydrophobic symptoms alone had developed. A dog, after this remained refractory to inoculations. In February, 1884, M. Pasteur indicated his mode of attenuation, consisting in cultivating the virus in different organisms, and announced that he had twenty-three dogs refractory to hydrophobia. In June of the same year he confirmed these results and showed the part which the rabbit plays in the attenuation. He announced that it was among the possibilities to produce this refractory state of the subject even after being bitten; but added that it would be necessary to multiply the proofs infinitely on different kinds of animals before one would dare to attempt this prophylaxis upon human beings. Now, in his last communication M. Pasteur shows the results of this test upon man.

He had found that the inoculation upon the spinal cord of rabbits of virus from a mad dog developed rabies in about fifteen days. By inoculating another rabbit from the first one, and others in succession, the intensity of the virus was so increased that the period of incubation was reduced to only seven days. By taking the spinal cord from a rabbit dying with this intense rabies, cutting it into sections and exposing it to the influence of dry air for some days, it would gradually lose its virulence until finally this would entirely disappear. Each day he injects under the skin of a dog a syringeful of sterilized bouillon in which is diluted a small fragment of one of these dried pieces of cord, commencing with a piece so old, *i. e.*, so far removed from the time when it was operated upon as to make it certain that the cord was very slightly virulent. On succeeding day, inoculation is repeated with similar solutions of gradually increasing strength, until finally that of the highest virulence is used without inducing any symptoms of

rabies. The dog is then unsusceptible to the poison of rabies. He had succeeded in so rendering refractory to rabies dogs of all ages and of every species, when unexpectedly there was afforded him an opportunity of testing the efficacy of the treatment upon the human subject.

A lad named Joseph Meister, aged 9, living in Alsace had been bitten at 8 A. M., July 4, by a mad dog. The bites were some of them very severe and deep, and were upon the face, hands, legs and thighs. When he was taken up he was covered with the dog's saliva and with blood from his own wounds. The most severe wounds had been cauterized with carbolic acid twelve hours after the bites had been received. The lad was brought by his mother to M. Pasteur July 6. At the request of M. Pasteur, Drs. Vulpian and Grancher of the Academy, examined the lad. They found not less than fourteen wounds, and were of the opinion that in view of their severity and number there was an almost certainly fatal prognosis for the boy.

The death of the lad seeming inevitable under any mode of treatment previously used, M. Pasteur, in consultation with the distinguished professors named above, determined to try upon him the treatment which had been so successful in his hands in rendering dogs refractory to the virus of rabies. Accordingly, he then at 8 P. M., July 6, 1885, in the presence of Drs. Grancher and Vulpian, commenced, for the first time in the history of medicine, the treatment of a human being for hydrophobia by means of the attenuated virus of the same disease. He injected under a fold of the skin a half syringeful (Pravaz) of bouillon with the cord from a rabbit that had been dead fifteen days. The injections were repeated twice a day and then daily, until in ten days he had given thirteen injections of gradually increasing strength, that from the last being from a rabbit that had been dead only one day, having a much more intense virulence than that of the saliva of a mad dog.

No unpleasant symptoms developed, and nearly four months after the time when the bite was received, the boy was in perfect health.

October 20 he commenced the treatment of a patient with reference to whom he says: "The Academy will hear perhaps not with out emotion the story of the courageous act and the presence of mind of the boy whose treatment I undertook last Tuesday.

Our readers will doubtless be equally interested. He was a shepherd boy, aged 15, named Jean Baptiste Jupille, who, seeing a dog of suspicious appearance, and of large size rushing upon a group of his little comrades all younger than himself, threw himself before the animal armed only with a whip. The dog seized Joupille by the left hand. Joupille then threw the dog and held him down while with the right hand he forced open his mouth so as to release his left hand, not however, without receiving several new bites. Then with the lash of his whip he tied his mouth shut, and seizing one of his sabots killed the dog.

A recent report of an interview with M. Pasteur by a correspondent of the *Globe Democrat* states that he has treated or has now under treatment seventy-three persons varying from four months to sixty years. The only case of failure was one in which an interval of thirty-six days had occurred between the receiving of the bite and commencement of treatment. He expresses confidence that, if commenced any time before any manifestations of the disease have developed, his treatment will be effective. He regards the prophylactic effect of the inoculations as surely effective for a year.

TREATMENT OF ROSE-COLD AND HAY FEVER BY COCAINE.

Dr. J. M. DaCosta read a paper at the stated meeting of the College of Physicians of Philadelphia, Oct. 7, 1885, in which he referred to a former communication made a year ago, in which he had suggested that cocaine ought to be advantageous in hay fever. He stated that during the past summer he had had several opportunities of carrying this thought into effect, as others, too, had done. He thinks it has been sufficiently tested for us to welcome it as a

very decided addition to our means of counteracting this most troublesome affection.

He related the details of several cases which had come under his observation, and which had been more or less completely relieved by the local application of two to four per cent solutions of muriate of cocaine to the nasal mucous membrane. The paroxysms of sneezing in the early stages of the attack were almost invariably relieved, and in some cases the asthmatic attacks were entirely averted. In only two cases were any unpleasant symptoms produced. In the first the patient found that when he used the solution in daytime it would trickle down his throat, benumb it, and make speech difficult. In the other case the patient, a young married woman, experienced so much relief from it that she renewed the applications several times during the day, and consequently suffered with a violent and distressing headache.

Some patients he finds, to have little or no susceptibility to the drug.

The mode of application is of importance. The readiest means is to inject five to eight drops up each nostril with the head thrown back. Once, or at most twice, a day, is generally sufficient. Care must be taken not to introduce the glass tube too far, or to irritate the mucous membrane by touching it with the tube.

The mode of action he considers to be partly by the local insensibility which it produces, partly by the contraction of the capillaries which it induces. It will not, he finds, arrest the bronchial catarrh, or the asthma, which attend some cases; but it does to an astonishing degree, lessen the tendency to these complications when applied early and before they have got much headway. He has not found the remedy radical or curative; but has found it greatly palliative and soothing, converting bad cases into mild ones, enabling those to stay at home who otherwise would have been compelled to escape to hay-fever resorts.

BOOK REVIEWS AND NOTICES.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, Being a Complete and Convenient work of Reference for Information upon Topics belonging to the entire range of Scientific and Practical Medicine, and Consisting of a Series of Concise Essays and Brief Paragraphs, arranged in the Alphabetical Order of the Topics of which they Treat, repared by Writers who are Expe ts in their Respective Departments. Illustrated by Chromo-Lithographs and fine Wood Engravings. Edited by ALBERT H. BUCK, M. D. *New York: Wm. Wood & Co.*, 1885. Imperial 8vo.; pp, 808; cloth.

We have long been waiting with eager curiosity to see the first volume of this Reference Handbook. We anticipated a valuable work. The ability already displayed as an editor by Dr. Buck in his work on Hygiene warranted the assurance that the Reference Handbook would be well edited; and the standing of the publishers was a guarantee of the thoroughly excellent typographical execution of the work.

We must confess that we are disappointed, as we have looked through this first volume now before us. Yes, pleasantly disappointed. It far exceeds our anticipations.

The double-columned pages, with their successive articles, varying in length from a few lines to many pages, are a storehouse of information. The ability of the editor is manifest in the wise selection of subjects and in the judicious selection of those who should discuss them. Contributors and editors have worked together with a single aim to produce an encyclopedia of medicine that will be an honor to American medicine.

Among the most extended articles in this volume are those on Antiseptics, by Drs. Sternberg, Wylie and Park; on Aneurism, by Drs. Stimson, W. H. Flint and Geo. Ross; Amputations, by Dr. Ransohoff; Accommodation, by Drs. Gradle and John Green; Anus and Rectum, by C. B. Kelsey; Auditory Nerves, by C. H. Burnett; Bladder, by A. T. Cabot, and W. Gardner, the series of articles on blood, blood-vessels, etc.; the series on the brain.

The illustrations, most of which are specially prepared for this

work, are excellent, and the chromo-lithographs, of which there are four in this volume, are exceptionally well done.

The publishers have a right to feel a high degree of pride in the work which they are offering to the profession, and will, no doubt, be heartily sustained by the profession.

APPLIED MEDICAL CHEMISTRY By LAWRENCE WOLFF, M. D., *Philadelphia: P. Blakiston, Son & Co.*, 1885. 8vo., pp. 174, cloth, $1.50. (St. Louis: J. H. Chambers & Co.)

The time has passed when chemistry could be safely neglected by medical students and practitioners, and with the better appreciation of its high value, greater facilities for its study have been given by colleges. Laboratories have been opened to teach such practical methods as are found of incalculable value to the physician, and books have been published, not only to guide the student in his pursuits, but also to supply to the practitioner such information as will enable him to make up for omission during his collegiate course. Such a design prompted the author of the present volume and he has well accomplished his task. The student who is supposed to have accomplished his first course in theoretical chemistry, is, in the first part, instructed in the use of the necessary apparatus and reagents, qualitative and volumetric, in stoichiometry, measurement of gases, etc.

The second part gives the chemistry of the most important poisons, comprising the inorganic and a few of the organic ones. A description of the physical properties and chemical relations of each substance is followed by a synopsis of its toxic effects and its antidotes, and then by a succinct statement of such analytical processes as will lead to its detection.

The third part is devoted to physiological chemistry. The fourth part discusses the chemistry of excretions and concretions, giving for the analysis of urine sufficiently plain and practical methods to be followed by any medical man.

The fifth part contains the important subject of sanitary chemistry, discussing briefly but pointedly, air, water, articles of daily consumption in food and drink, and lastly a short account of pharmaceutical preparations, and their active principles.

Each part is succeeded by a short syllabus. An appendix contains an account of the ptomaines and a number of useful tables.

Throughout the work the principal object appears to be to give general information on all the subjects treated of, with sufficient

practical detail to serve as a valuable aid to the personal instruction of the demonstrator, while in the laboratory, and as a reminder for subsequent practice.

DOUBLE CONGENITAL DISPLACEMENT OF THE HIP. Description of a Case with Treatment Resulting in Cure (with plates). By BUCKMINSTER BROWN, M. D., Consulting Surgeon of the House of the Good Samaritan, etc. *Boston: Cupples, Upham & Co.*, 1885.

This pamphlet of twenty-four pages first appeared in the *Boston Medical and Surgical Journal*, June 4, 1885, p. 541, description of a case of double congenital dislocation of the hip in a little girl, æt. 4½ years. "No trace of cotyloid cavity could be discovered." The patient was kept on her back for thirteen months, extension being made on the limb continuously; the muscles so relaxed or stretched as to allow the head of the femur to remain opposite the acetabulum, or at least where that cavity should be. In due time passive motion was instituted for several hours daily, resulting in the formation of a socket eventually deep enough to retain the bone without assistance.

A note made thirty months after treatment was instituted reports the child's walk as normal, and her steps firm and vigorous, and that she took especial pleasure in running.

Dr. Brown is to be congratulated on the successful issue attained, and to be commended on his ingenuity in the use of appliances to meet the indications, and too, for his perseverance. In the patient he certainly had a brave little heroine, and the parents intelligently supplemented the efforts of the physician. Were there more such (parents) orthopedic successes would be more frequent than at present.

As far as our experience and reading extends this is the most, perhaps the only, successful case recorded. The theory of the treatment is not new, but the method employed is ingenious and will find imitators. Certainly in our own practice we will no longer relegate these cases to the category of incurables.

Eight fairly good photographs illustrate the deformity and means employed for cure. A. J. S.

THE MANAGEMENT OF LABOR AND OF THE LYING-IN PERIOD. A Guide for the Young Practitioner. By HENRY G. LANDIS, A. M., M. D., *Philadelphia: Lea Brothers & Co.*, 1885. 12mo., pp. 334; cloth. (St. Louis: J. H. Chambers & Co.)

The aim of the author in preparing this little volume was not to issue a new complete treatise on obstetrics but "to serve as a guide

to practice, divested of all superfluous or irrelevant details." The author assumes "an acquaintance with the anatomy and physiology of the parts involved and of the mechanism of normal labor."

In most particulars, Prof. Landis has given us a reliable and good exposition of the best practice in the various emergencies that arise in obstetrical practice.

Dr. Landis does not believe in leaving too much to nature in the management of labor cases, holding that in many instances the old maxim, "meddlesome midwifery is bad" is made a refuge for ignorance and inefficiency.

The most serious error in his directions for practice is that in regard to the management of mento-anterior position of facial presentations, where, on page 120, he says:

"Assistance in a mento-posterior position is demanded, therefore, both in the interests of the mother and child. We should first endeavor to secure anterior rotation so as to convert it into a mento-anterior position. The shoulders should first be mapped out by abdominal palpation and the back of the child brought in front if possible." Of course he intends exactly the opposite. The front of the child must be forward in order to bring the chin under the symphysis pubis.

On the opposite page where he speaks of the brow presentation as a serious accident, he says that it "may impede delivery entirely." He doubtless intended to use the word *obstruct* or *prevent* instead of impede.

It is certainly a questionable pathology which speaks of scarlatina, diphtheria and erysipelas as "a triple-faced Hecate."

His recommendation of hot milk instead of alcoholic stimulants after profuse hemorrhage is admirable and valuable.

The word Credé is incorrectly spelled with a grave accent upon the final vowel. The coining of a verb from that noun is not to be commended. Not even in the interest of condensed expression is it well to say that the placenta is "Credéd.

On page 251 Dr. Landis says: "The fetal head is of variable size, and occasionally we encounter a case in which it is impossible to deliver a head through a normal or nearly normal pelvis without reducing the size of the head. At least I have found it so on several occasions, and with such able assistance that I fear that those who deny the operation as murderous under such circumstances, are more skilled in vituperation than experienced in midwifery."

It is a little remarkable that one who speaks so severely of those

who condemn craniotomy where there is a normal or nearly normal pelvis should assert so emphatically as he does on page 278 that the induction of premature labor for the relief of excessive vomiting "is clearly improper" and "ought not to be undertaken before the period of vitality." Certainly there are enough cases on record now of death from the vomiting of pregnancy, and of other cases where the extreme vomiting was only arrested by abortion either spontaneous or induced, to prove that the induction of abortion in these cases is sometimes both proper and necessary.

While the points referred to have seemed to call for adverse criticism, the work is generally commendable, and will be of service in many cases, where it is not convenient to refer to one of the more elaborate treatises.

E. M. N.

ELEMENTS OF MODERN MEDICINE, including Principles of Pathology and Therapeutics, with many useful Memoranda and Valuable Tables for Reference. Designed for the use of Students and Practitioners of Medicine. By R. FRENCH STONE, M. D. *New York: D. Appleton & Company*, 1885. 12mo.; pp. 369; morocco with flap. (St. Louis: J. H. Chambers & Co.)

This pocket manual is printed in small clear type, on light but excellent paper, with very narrow margins and substantially bound in morocco with a flap and clasp. The author has succeeded in condensing a vast amount of matter with reference to general pathology and therapeutics within the covers of this little book. He does not accept the "germ theory" of disease, but thinks the views which he does advance are more in accord with clinical experience than those which he opposes. In looking over the preface one is impressed with the feeling that the author has undertaken a pretty large contract. He has executed it better than we expected.

A TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS. By FRANK CLOWES, D. Sc. Lond., etc. With illustrations from the Fourth English Edition. *Lea Brothers & Co., Philadelphia.* 1885. 12 mo,. pp. 376, XIV., cloth. (St. Louis J. H. Chambers & Co.

This is a revised edition of a well known and much appreciated laboratory manual, somewhat enlarged and rearranged.

In Section I, which in the former editions was Section II, the use of apparatus is described, and a number of new cuts take the

place of the older ones. Section II, formerly section III, describes experiments illustrating the preparation of gases, to which ozone, sulphur dioxide and nitrogen monoxide have been added.

In section III, a new cut of the spectral chart illustrates the chapter on spectrum analysis, advanced from the place which it formerly occupied in the appendix. The manipulations of the laboratory are briefly but distinctly described, so as to leave but little room for explanations by the teacher.

Section IV treats of the analytical reactions of metals and acids, and is substantially unchanged from the previous edition.

Section V contains a schedule for analysis of simple substances, containing one metal and one acid radicle.

Into Section VI, comprising the analytical course, some preliminary paragraphs and a new division describing the reactions of certain organic substances have been introduced, and the reactions of rarer elements have been attached to it, which were previously in the appendix.

Section VII. Description of the laboratory fittings and lists of special reagents for students are more complete, and aided by the frontispiece illustration of a laboratory bench at Nottingham. Various useful tables and a copious index concludes the work, which we can highly recommend. C.

OFFICIAL FORMULÆ OF AMERICAN HOSPITALS, Collected and Arranged by C. F. TAYLOR, M. D. "*Medical World*," *Philadelphia*. 32mo.; pp. 238; cloth.

This is a collection of the formulæ most commonly used in different American Hospitals. Some of them have quite extensive formularies, and most of the prescribing is done by referring to the number of the formula. In others no set forms have been adopted and extemporaneous prescriptions are written for each case.

The book is neatly printed.

COMPARATIVE ANATOMY AND PHYSIOLOGY. By F. JEFFREY BELL, M. A., etc. Illustrated with 229 engravings. *Philadelphia: Lea Brothers & Co.*, 1885. 16mo.; pp. 555, cloth.

Carpenter's work on this subject is old and is too bulky for students' use.

Prof. Bell traces through successive animal forms the physiological history of the various organs, and thereby gives the student a thorough understanding of *physiology*, not simply human physiology.

Such a work was much needed and Prof. Bell has well supplied it. The book is profusely illustrated and forms a valuable number of Lea's series of manuals for students.

INSOMNIA AND OTHER DISORDERS OF SLEEP. By HENRY M. LYMAN, M. D., etc., *Chicago: W. J. Keener*, 1885, small 8 vo.; pp. 239; cloth.

Prof. Lyman finds the cause of sleep in the molecular structure of the brain rather than in the fluctuation of the blood currents.

Probably the chapters on dreams and somnambulism will be generally found most interesting. There are some very interesting cases which it is impossible at the present stage of our knowledge to understand or explain.

There is nothing new in what the author says about insomnia, but he has given us a very readable and interesting book.

DISEASES OF THE TONGUE. By HENRY T. BUTLIN, F. R. C. S., etc. Illustrated with chromo-lithographs and engravings. *Philadelphia: Lea Brothers & Co.*, 1885. Small 8vo.; pp. 451; cloth. (St. Louis: J. H. Chambers & Co.)

This little monograph is one of the "Clinical Manuals for Practitioners and Students of Medicine," now in course of preparation by Lea Brothers & Co.

The author has had opportunities for study and observation which specially fit him for the task, and he has given us a very valuable contribution to medical literature.

There is a certain diffuseness and sometimes obscurity in his style, and there are some unnecessary repetitions, which mar the value of the book to some degree; yet on the whole it is an excellent work and one that we do not hesitate to commend to our readers.

We have not space for extensive quotations nor for reference to many special features of interest, but would simply refer to the ground taken by the author that "the fur on the dorsum of the tongue is not composed of epithelial cells and the debris of food, but of minute living organisms."

He deprecates the use of caustics in the treatment of sores of the tongue in persons over thirty years of age; urging that they be either let alone or be thoroughly removed by the knife or electro-cautery.

He lays much stress upon the presence of "cell-nests" in the microscopic examination of scrapings of carcinomatous ulcers, none of which were observed in scrapings of other tongues.

REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

Painful Mamma in Young Girls.—JOHN H. MORGAN states that he has seen several cases of young girls from ten to twelve years old suffering from pain in the mamma, more often the left than the right. No inflammatory symptoms were present. All the cases remained under observation for several weeks and seemed to be little, if at all, relieved by treatment, either general or local. The pain, after continuing for some weeks, would cease intermittently and finally altogether. He is disposed to refer it to some developmental change in the structure of the gland accompanying or preceding the other developmental changes which the female organism is preparing for at that age.—*Brit. Med. Jour.*, Oct. 7, '85.

Ovum in Ovo.—ROBERT BARNES, referring to recent communications on this subject, recalls a case which he described in the *Obstetrical Transactions*, 1862. A hen, a half-breed Cochin and Dorking, repeatedly laid double eggs. The shell of the included egg was always of a red tint like the Cochin fowl's egg, while that of the including egg was always of a dull chalky white, like the Dorking's. As he remarks, "To find two yolks in one shell is common enough; but it is certainly rare to find two perfect eggs, one contained within the other. That two ova may descend along the oviduct together, getting a common investment of albumen, and then of shell, is an intelligible occurrence. But it is not easy to understand how an egg, after obtaining its albumen and shell, the latter of which is added near the cloaca, can become associated with another ovum, and be invested in the albumen and shell of its fellow. Does the first ovum, after receiving its own albumen and shell, get carried back up the oviduct to meet the second ovum, and then descend along with it through those tracts which supply successively the albumen and the shell? Or does the first egg, after completion, lie in the lower part of the oviduct, waiting the arrival of the second egg, and get immersed in its fluid albumen before the deposit of shell has commenced?"—*Brit. Med. Jour.*, Oct. 17, '85.

Maternal Impressions.—JOHN H. MORGAN states that for the last seven years he has been collecting notes of every case of abnormality coming under his observation at the Hospital for Sick Children, and has analyzed most carefully as to the influence of "maternal impressions" and heredity. He has found very few cases which under such careful scrutiny gave any support to the view that maternal impressions had any marked effect in producing such abnormality.—*Brit. Med. Jour.*, Oct. 17, '85.

Pessaries.—Anteflexion.—DR. WM. GOODELL in a clinical lecture before the class in the University of Pennsylvania said: "I wish, in the beginning, to disabuse your minds of one error. Many textbooks speak of anteflexion as a pathological condition, and will show many forms of pessaries to be used in anteflexion and anteversion. In the great majority of cases anteflexion is not pathological. You will find in almost every unmarried woman that you examine the womb anteflexed and resting on the bladder, for this is the natural position. The mistake made is this: A girl is overworked, or over-tasked at school, and her health begins to fail, and one of the first symptoms of impairment of the nervous system is irritability of the bladder. This is one of the first nervous symptoms. Everyone gets it. I have often referred to an illustration which is familiar to you all, and that is that at examination time you find that you are obliged to pass water more frequently than natural. Many a lawyer and many a clergyman is compelled to urinate before entering upon a case or before delivering a sermon. The same is seen in the lower animals. When an animal is greatly frightened the first thing it does is to empty the bladder. A nervous bladder is, as I have said, one of the earliest phenomena of nervousness. When a woman has been overworked, comes to the physician complaining of bearing-down feelings, back-ache and other nervous symptoms, and he finds the fundus resting on the bladder, he at once jumps to the conclusion that the trouble is due to anteflexion or anteversion, and thinks he must use a pessary to overcome the difficulty. There is no anteflexion pessary which accomplishes its object which does not press on the bladder on at least two places. Granting that such a pessary is the one to be used, few women can stand it. Anteflexion, however, as I have said, is not a pathological condition in the majority of instances, and the vesical symptoms are not due to the pressure of the fundus of the uterus, but to a nervous bladder.—*Med. Bulletin*, Nov., 1885.

Albuminuria of Pregnancy and Eclampsia.—MM. Doléris and Poney have reached the following conclusions from their researches concerning albuminuria and its relations with pregnancy:

1. Albuminuria of pregnancy, not including the accouchment, is met one time in twenty.

2. The urine of pregnant women may accidentally and in spite of precautions taken, contain organisms about one time in five. The fact is probably due to a vaginal catarrh, propagated to the urethra and perhaps to the bladder. In all cases it is necessary to take account of this cause of error in the researches.

3. The urine of pregnant albuminuric patients, observed by the authors, always contained organisms principally in the form of chains. The blood of these same women does not always contain them; at least examination and culture has not always revealed them, which is not an absolute proof of their absence, for only a few drops of blood from the finger tip of each one of them were examined.

4. In five eclamptic albuminuric patients examination and culture of blood and of urine were made at different times. In three cases, doubtful results were obtained from the blood; the researches were inefficiently carried out and the authors attach no value to them. In two cases the results were positive. It was possible to observe the increase and decrease of the microbic nephritis and of the infection of the blood parallel with the convulsive attack.—*L' Union Méd.*, Sept. 29.

Obstetric Notes.—John Stockton Hough analyzes seven hundred births in the Philadelphia Hospital between 1865 and 1872. He finds that female children have the trunk longer in proportion to the whole length than males. The placenta is heavier in proportion to the fetal mass in females than in males. The duration of gestation is longer by three days with males than with females. The duration of labor was two to four hours greater with males than with females.—*Phil. Med. Times*, Oct. 31, 1885.

SURGERY.

Treatment of Carbuncle.—Dr. James Collins has lately treated two cases of carbuncle on the back of the neck by a method which seems to have some advantages. The patient was put under the influence of an anesthetic and a linear incision made. He then took

a scoop and removed all the necrosed tissue, and washed the parts thoroughly with an antiseptic solution of mercuric chloride. He then put in a drainage tube, and inserted two stitches to bring the central part together. Each day the cavity was thoroughly washed out with the antiseptic solution. The patients have done well, and the cicatrix has been less than after any other method he has tried. The success depends upon the removal of the necrosed tissue and the use of the antiseptic solution.

Dr. S. W. Gross considers this the best operation yet suggested. By scraping away all the dead tissue he gets rid of the micrococci which produce putrefaction, which give rise to the sloughs. The application of the corrosive sublimate destroys the micrococci which line the walls of the cavity, and in that way removes the cause of the disease.

Dr. Mears asked if Dr. Collins, in scooping out the dead tissue, found anything like a thickened wall limiting the mass to be removed, and if he was able to satisfy himself that he has removed all the dead tissues.

Dr. Collins said he kept on scooping out until he reached a denser structure. The difference seemed to be in the denseness of the tissue. The healthy tissue seemed to be firm,

Dr. Levis said the operation of excision of carbuncles in their incipiency had been repeatedly advised and practised. In cases of constantly-recurring carbuncle he thought that excision would be of service.

Antiseptic Surgery at Bellevue.—Stephen Smith in a very interesting paper contrasts the methods and results of surgical treatment in Bellevue Hospital, New York, at present under antiseptic methods with those of the days before the antiseptic treatment was adopted.

Absolute cleanliness is the essential condition to success which he thus emphasizes. A clean operator, clean assistants, a clean patient, clean instruments, clean dressings. The agents by means of which such cleanliness are secured at Bellevue are: 1. Soap and water to external parts. 2. Carbolic acid solution for the instruments. 3. Bichloride solutions to all surfaces and tissues. 4. Iodoform for external dressings.—*Med. Record*, Oct. 17, 1885.

The Limitations of Colotomy in Disease of the Rectum.—Dr. Charles B. Kelsey defines the following as the indications for colotomy:

1. In congenital malformations of the rectum or anus in children in which a tentative operation in the perineum has failed to reach the rectal pouch.

2. In intestino-vesical fistulæ.

3. In tumors occluding the rectum which cannot be relieved by any other means—dilatation, division, hot water, or electrolysis.

4. In non-cancerous, simple or specific stricture and ulceration of the rectum (with or without fistulæ), where the disease cannot be relieved by proctotomy or dilatation, or division of the fistulæ and local treatment of the ulceration.

5. In cancer when the disease can neither be removed nor the passage re-established, and where death is probable from obstruction—except in cases where the immediate dangers of the operation more than counterbalance any good likely to be gained by it.

6. In volvulus or intussusception of the colon or sigmoid flexure, where reduction by the aid of laparotomy has been found impossible.—*Am. Journ. of the Med. Sci.*, Oct. 1885.

MEDICINE AND THERAPEUTICS.

Arsenic Inebriety.—T. D. CROTHERS relates a case of arsenic addiction in a horse doctor and trainer who had been using arsenic for ten years. He would take three ounces of Fowler's solution daily, when he could get it. When he could not procure this he would take what he supposed to be fifteen to twenty grains of arsenious acid. He took the drug twice a day. It seemed to act as a narcotic and stimulant. He is inclined to think that the secret use of arsenic is rapidly increasing throughout the country.—*Jour. of Inebriety*, Oct., '85.

Tasteless Tincture of Iron.—DR. A. CREUSE gives the following formula for the tasteless tincture of iron:

R	Acidi citrici,	℥i.
	Potass. carbonat.,	℥i.
	Aq. destillat.,	
	Sol. ferri chloridi,	aa ℥i.
	Spts. rect. dil.,	q. s.
	Sach. alb.,	℥ss.

Dissolve the citric acid in the water and bring it to the boiling

point. Remove from the fire, and add from the carbonate of potassa until the effervescence ceases. Then add enough dilute alcohol to make four ounces. In this dissolve the sugar and filter.—*N. Eng. Med. Mo.*, Oct., '85.

Yerba Santa and Grindelia Robusta in Acute Bronchitis.—Dr. E. Stuver states that for four years he has been using with satisfactory results in the treatment of acute bronchitis a mixture of equal parts of the fluid extracts of grindelia robusta and yerba santa, and either simple syrup or syrup of tolu.

He finds it specially serviceable for the relief of the annoying cough of bronchitis which, while the person is up and about during the day, commences with greater or less severity, and continues sometimes for hours when the recumbent position is assumed.

In most cases, he says, it acts like a charm, instantly controlling the cough and relieving the tickling in the throat and bronchial tubes. It is less serviceable in chronic than in acute cases.—*Med. News*, Oct. 24, '85.

DERMATOLOGY.

Ringworm.—Dr. Payne sums up the treatment of ring-worm as follows: Shaving or close cutting of hair, shampooing with soft soap, epilation and the application of remedial agents. The latter he divides as follows: 1. metallic salts; 2. preparations of sulphur; 3. resins and aromatics, as the tars, carbolic acid, chrysarobin, etc.; 4. strong irritants and vesicants. These remedies may be in solution, as in water, glycerine, alcohol or chloroform, or better, rubbed up with lard in the form of ointments. As a last resort, kerion may be produced. Dr. Payne prefers the oleate of mercury to the copper salt.—*British Med. Jour.*, May 23rd, 1885.

Psoriasis.—Dr. Greenough presented a paper on this subject at the last meeting of the American Dermatological Association, giving the results of his observation in 394 cases. Of 151 cases in which the date of the first occurrence was determined, in twenty the age of the patient was under 10 years, and in six over 50. The proportion occurring at these extremites of life is remarkable, and not what the statements in the text-books would lead us to suspect

Of ninety-seven giving information as to family tendency, it was

found to have existed in sixty-six. Psoriasis is often mistaken for syphilis. In fact the diagnosis in certain localities, as on the scalp, is oftentimes difficult. Here psoriasis is accompanied with hyperemia, except in bald patches. A distinctive feature is a band of hyperemia, without scaling on the forehead along the hair line and one-fourth to three-eighths inch in breadth. This is never found in eczema, and in the latter complaint the disease is apt to spread to the ears. Psoriasis of the scalp is often preceded by dandruff and rarely eventuates in permanent loss of hair. Dr. Greenough had never seen psoriasis of the palm or buccal mucous membrane.

The treatment recommended consists in softening and removing the crusts and applying the tarry preparations such as the oil of cade.

Dr. Elliot, of New York, speaks very favorably of the following:

℞ Ac. pyrogallici, - - - ℥iss—℥ij.
Ac. salicylici, - - - - ℥ss.
Collodii flex., - - - - ℥ij.
M. Ft. Sol.

Pyrogallic acid is stated to be much more reliable in its action than the specimens of chrysophanic acid now obtainable. The object of combining salicylic acid in the above prescription is to retard cornification. Of course the old dry collodion is to be removed before each fresh application. The above formula has also been found efficient in tinea tonsurans.

Another recent writer recommends:

℞ Acidi pyrogallici, - - - grs. xlviij.
Olei ricini, - - - - gtt. x.
Collodii flex., - - - - ℥ii.

JOS. GRINDON, M.D.

ADVISE TO GRADUATES.—DR. GROSS at the close of his last lecture at one of the sessions, paused a moment, then said: "I suppose you expect a parting word from me." After a second pause he said: "One of the most beautiful sights on earth is that of a young mother leading a little child. Gentlemen, marry early; cultivate flowers; occupy your minds with the delightful things of earth, and leave no time for the seductiveness of vice."—*Columbus Med. Jour.*

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, October 19, 1885.

A NEW DEPARTURE IN UTERINE THERAPEUTICS.

THE DRY TREATMENT.

Dr. Engelmann.—I did not expect to be called upon so soon after my return, and the first notice of my being expected to read a paper before the society this evening, was received together with the card announcing the meeting, yesterday morning. Presuming that the society would expect the regular paper, that you might not be altogether disappointed, I have determined to address you upon a subject which I have had in mind for a good many years, in which I am deeply interested, but which I have felt was not yet quite ready for publication. Still, knowing that we would have but a short time for scientific discussion at this, our annual meeting, I will, at least, depict the subject in brief, and make what I might call a preparatory statement.

I will explain a method of uterine treatment which I consider new and original with myself. Though not yet perfected in all its details, the main features are sufficiently well defined to entitle them, as a method, to your consideration. Without elaborating I will give you these leading points, more especially as I deem it well to make a preparatory statement for the purpose of claiming precedence, as similar views are often ripe in several similar thinking minds at the same time, and various publications may appear spontaneously and independently at the same time. The method I claim is, if I may call it so, the dry method: it is decidedly a dry treatment, as compared to the methods of uterine treatment now practised in this country.

The methods of treatment in use in different countries present striking variations and contrasts; certain methods of practice which predominate in one country are almost unknown beyond its boundaries, science being by no means truly cosmopolitan; in Ger-

many, for instance, at one time the washing of cervix and vagina with strong solutions was an almost universal practice; in many clinics it was customary, whether other treatment was applied or not, to wash cervix and vagina with strong solutions of sulphate of copper or carbolic acid, through the Ferguson speculum. In France they use—I am only speaking of methods which are not used here—they use the cautery, and medicated supports to the uterus: the thermo-cautery also is a specialty in French gynecology: a common usage is to apply a remedy in a small semi-circular bag made of muslin or mosquito bar, which at the same time serves as a support for the uterus. This country is peculiar in its use of nitrate of silver and iodine; though in England it is used in a similar way, but by no means as freely and as commonly as here.

These are but a few of the many peculiarities; yet among all these often widely differing methods I find none, unless it be the gauze pouch of the French, which approximates to or resembles the dry treatment of which I shall speak. For this method I claim as the distinguishing features the treatment of the uterus through the vagina, and the useof the salts and cottons, either alone or in combination. The dry method, in my practice, developed mainly from the sad results and the injury which I have seen following the promiscuous use of strong fluids in the uterine cavity, iodine, and especially nitrate of silver. But there was a time when the practitioner was not even satisfied with that: the pure nitrate of silver, nitric acid, the strongest possible remedies were used, and very commonly used, when no relief followed the use of the ordinary applications: if the patient grew worse under the use of iodine or nitrate of silver, it was supposed to be due to the progress of the disease, the insufficiency of these remedies, and stronger ones were used, naturally with still more unsatisfactory results: if the uterus was displaced, a pessary was inserted without regard to the cause of the malposition or the condition of the organ. It was from the injury caused in the sensitive, inflamed parts both by pessaries and by these powerful applications that I was induced more and more to apply my remedies in a milder form, and in a manner less irritating, and one of the most important and characteristic features of this method is the avoidance of intrauterine applications except in case of unquestioned necessity, where the indication distinctly exists. I admit that in certain cases intra-uterine ap-

plications are necessary and cannot be supplanted, precisely as the wet glycerine tampon has its place and cannot be altogether replaced, but I would not advocate either as a method. I would greatly prefer to rely upon the dry treatment as a method, using other remedies in individual cases when called for. It has long ago appeared to me as a correct principle in uterine therapeutics that we should act upon the tissues of the entire organ, even the vagina and other surrounding parts, the ligaments and cellular tissue, and not upon the mucous membrane only. The mucous membrane in some instances is the original site of disease: in others the mucous membrane is secondarily affected, diseased together with the mass of surrounding tissue. In all these cases the common practice is to make the application of iodine and nitrate of silver to the mucous membrane; this often secondarily affected part is made to bear the entire insult of the treatment, and it suffers in consequence. I have endeavored more and more to reach the surrounding tissue, to reach the muscular structure of the uterus, very frequently even the tissue surrounding the uterus, by treatment, and I was forced to seek another point of attack. The mucous membrane, the inner lining of the uterus, is, with the exception of the well guarded outer coating, the peritoneum, the most sensitive and delicate structure in all this tissue, and in treating the entire organ we have always attempted it through this most delicate part.

I have felt that other points of attack must be found, tissues which would bear treatment better; and, in fact, these tissues are frequently the site or centre of the existing pathological changes, and must then, of necessity, be the direct object of treatment. Experience has taught me that in disease not strictly localized, it is far better to directly reach these more resistant structures, at the same time the greater mass of tissue, than the more delicate mucous membrane: I consequently tried the German method of a cervical wash, using stronger fluids through a cylindrical speculum to wash cervix and vagina. This is an uncleanly method and unsatisfactory; in short, the use of fluids upon the cervix and cul-de-sac, though to a certain extent reaching the cellular tissue and ligaments, did not satisfy me, although less dangerous, and, in general, more correct than the constant mopping of the endometrium. I then used the salts, at times filling the cul-de-sac surrounding the cervix with such salt as might seem desirable; for instance, alum, bis-

muth, the zinc oxide or iodoform; the application of cotton saturated with the salt followed, and this led to the medicated cotton.

The prepared cottons I consider as the neatest and most satisfactory way of treatment, convenient and cleanly; even iodine in this form is not objectionable, as you see by this five per cent iodized cotton, preserved, well corked in an amber bottle: thus applied to the cervix, iodine does not burn or cauterize: it is gradually absorbed: it is packed at the point upon which it is to act, and it is then slowly absorbed. Such an application differs distinctly from those of all other methods; it differs from the painting of the surface, rather resembling the dressing with powders; it is not corrosive, it does not act with intensity all at once; it causes no discomfort, but acts continuously, as it is slowly absorbed. So the tannated, borated or salicylated cotton, and as a hemostatic, the iron cottons of various strengths, render admirable service. I have iron, iodine, borax, salicylic acid, tannin in this form, from Van Ende; alum and iodoform cotton I prepare myself.

Comfort of application, mild and prolonged action are prominent features of this method, and an advantage it undoubtedly possesses; yet there is another advantage, and upon this second point I lay equal stress—that is the support afforded the displaced organ, and the rectification of malposition as accomplished by this method. I frequently found ladies complaining of sufferings caused by pessaries, the pessary aggravating preexisting trouble, and yet in many of these chronic inflammations we have displacement; and this it is desirable to relieve as soon as possible; best during the progress of treatment. The pessary is then used, often to the detriment of the patient, exciting inflammation: here the cotton tampon is called for, the vehicle for the remedy therapeutically indicated now serves with equal advantage a mechanical purpose. There is no better remedy than a medicated cotton; whilst treating your patient for the existing inflammatory trouble you at the same time correctly place your tampons and support the uterus, thus giving her immediate and two fold relief. The patient so treated does not suffer from the treatment: on the contrary, she leaves your office relieved. The remedy is gradually absorbed from the cotton, and when, after twenty-four hours, the patient removes the tampon, it is white: the iodine has been absorbed.

The benefit of this gradual treatment is that it causes her

no suffering: on the contrary it produces comfort, and at same time a second object is attained, the reposition of the uterus. In case of a relaxed vagina the iron cotton should be used, which whilst giving support, strengthens and contracts the tissues of the vagina: this is not distended as it would be by simple cotton; on the contrary contraction is produced, so that first from the use of a simple cotton tampon for the support of the uterus I again came to the addition of the salts and then to the use of these cottons. I found that it was advantageous, when using a stronger salt, to use it imbedded more or less deeply in the cotton tampon, the remedy, thus dissolved slowly, prolonging its action and obtaining the effect by degrees. The next step is apparent: I had cotton thus prepared in quantity, saturated with the remedy. Some eight years ago I commenced to use cotton saturated with carbolic acid, salicylic acid and perchloride of iron; alum I merely used as a powder in the cotton. This cotton, especially the powerfully styptic iron cotton, prepared for me by Habicht and Co., of St. Louis, rendered most excellent service until I discovered the preparations of Van Ende.

I had found a method of applying a remedy to the uterus with comfort to the patient, possessing moreover the great advantage of continued action. If I apply iodine with the pencil, the action is intense: the amount necessary for successful treatment is at once applied, and with suffering to the patient: if I use iodized cotton I can, with advantage and without pain, use a larger amount, which is slowly absorbed in the course of the next twelve hours, the action of the remedy being moderate and continuous. The treatment is clean, it is dry, it is comfortable; it does not give any pain, but, on the contrary, relieves. These cottons are, of course, limited in number, though we have borax, iron, salicylic acid, iodine, corrosive sublimate and jute in various forms, which is prepared for the purpose, cleansed and medicated, but the fibre is somewhat coarse and irritating, so that it can not well be used alone for tampons, notwithstanding its excellent qualifications. The cottons are thoroughly absorbent cottons, hence the tampons lose their elasticity: when saturated with discharge, they become doughy. The jute fibre is not soft and fine enough for use in most cases, but where they are borne, the best tampons are those made of jute; they are absorbent, light and elastic, but unfortunately rather harsh so that I frequently use a small jute tampon covered

with a medicated cotton, which unites the elasticity of the one with the delicacy of the other and adds the therapeutic effect: if not desirable to make the treatment severe, an almost transparent layer of the prepared cotton, is placed over the jute, the quantity used being in accord with the effect desired. This tampon is mechanically useful and at the same time medicates; it is elastic and not compressible; it does not absorb the fluid and shrink to a hard lump, as cotton alone would. The remedies I mainly use are alum, bismuth, tannin, salicylic acid, iodoform, and the oxide and sulphate of zinc; these I apply by means of powder blowers, from which a very fair jet can be obtained, though not fine enough for the cavity, very excellent for the vagina. I have repeatedly attempted the treatment of the cavity itself, but have never been able to bring the powder in proper contact with the lining membrane, and have not been able to evenly coat the cervical canal. Tannin and iron I have used in compressed form, baccilli made in accord with my directions by the druggist, which are excellent in extreme cases, but ordinarily too severe. The best form of medication I have been able to attain, next to the powder which I consider preferable, has been the pencil, made, according to my suggestions, in Philadelphia, by Mitchell, whose gelatine pencils have proven so successful in the treatment of other organs. I found the pencils originally made by him too dangerous, being too large and firm, perhaps one and a half line in thickness. The pencil he now makes is the one suggested by myself, more delicate and easily dissolving, flexible and soft, one-half to three-fourths line in thickness, so that it can readily be introduced into any uterine canal without completely obstructing it, and without giving trouble, although it is necessary to observe great caution in all cases, as some are extremely sensitive and respond as violently to the pencil as they would to an intra-uterine application; I am not at all satisfied with the result, and believe that a vehicle more soluble still must be found. However these are the best, so far. These pencils are elegantly prepared: this delicate cylinder for instance, contains one grain of sulphate of zinc, one grain of extract of opium, and a quarter grain of extract of belladonna. Smaller but more firm than these are the iodoform pencils of Parke, Davis & Co., and yet this clumsy pencil is one which I have found absolutely harmless. It seems strange that the delicate soft gelatine pencil, such as I have shown you, is more liable to act as an irritant than this

large heavy pencil which, in my practice, has never caused noticeable irritation or any injury whatever, even when used in the office.

We have too long centred all efforts upon the mucous membrane, a very sensitive and yet a very small part of the organ and a change must be made; as a rule, it will be found better to attack this membrane indirectly. The hot douche strikingly demonstrates the advantages of this method; every one knows how decidedly the douche improves the uterine condition and benefits the membrane itself; so the remedies used in the vagina and against the cervix, though directly affecting the muscular tissue, act upon the mucosa; they invigorate the tissue, improve the circulation, and thus benefit the lining membrane, which in part even receives the astringent effect of the remedy, or whatever that may be. I have frequently proven this in cases of profuse discharge, acute, sub-acute, and chronic, in which no intra-uterine treatment whatsoever was administered, nothing but the dry treatment with the use of iodoform, iodine, zinc, bismuth or other salts.

We all appreciate the importance of replacing a uterus flexed or verted, but often to our chagrin, in the diseased conditions of the organ, the pessary is out of the question. By the method I have adopted, and which I now urge before you, it is possible for us to relieve such displacements at the same time that we are bettering the coexisting disease, and both, being attacked at the same time, yield more readily. The tampon improves the circulation in replacing and supporting the uterus, and thus facilitates the action of the remedy; if we add to this the effect of the remedy, with which the cotton is saturated, upon the vagina and the surrounding tissues, ligaments and ovaries, we will see how infinitely preferable reposition by this method is to the replacing and supporting of the diseased organ with a pessary as it is so often attempted.

I rely upon the salts and the cottons in treatment of uterine disease, and depend upon them, as my brethren depend upon fluid and applicator. I might almost say that I rely upon them altogether. My method of applying salts to the uterine cavity is still very imperfect, yet I am endeavoring to use the dry treatment to the mucosa wherever such direct application is called for; where powder is out of the question, pencils have proven the best method I have been able to find so far, though I must say that the large pencil which Mitchell has made, his old intra-uterine pencil, is dangerous when applied in the office, as I have repeatedly

seen slight inflammations following its use. The small new pencil, however, is a very satisfactory application; still I watch patients and warn them beforehand of possible pain, advising them what to do if trouble should occur. An instrument which would enable us to dust the mucous membrane judiciously would enable us to treat our patients to greater advantage, and this alone is wanting to perfect the dry method in uterine therapeutics.

Dr. Barret.—By whom was that short, thick iodoform pencil made?

Dr. Engelmann.—That was made by Parke, Davis & Co. I have never seen any harm from it, yet the very slender, pliable gelatine pencil will sometimes cause trouble, depending upon the irritation or non-solubility of the pencil itself—it is the mass of gelatine, not the remedy which it carries, which excites, as I have seen hyoscyamus, opium and belladonna, cause precisely the same trouble which ergot or zinc would if used in the same pencil form. If the patient can lie down immediately after treatment, and rest until the mass dissolves, it can be used with safety. I have frequently introduced two of these large iodoform pencils at a time, one behind the other, because they are not made longer than one inch, and have never seen trouble following. The powder blower is a necessary adjunct to the dry treatment, and a good many of these instruments are called for, because it is very inconvenient to fill a single one with a different powder for each application of a different remedy; one of these instruments contains sufficient for, perhaps, a dozen applications, and I make it a practice to use one for each of the remedies. The glycerine tampon I have found extremely uncleanly, and, as a common application, at least not serviceable. In certain clearly defined cases it is of value, and I think that I have seen cases in which it did excellent service, as in the dry, hard, indurated cervix of old chronic cases. I still frequently use it, but I believe that the iodine is preferable to glycerine and will even replace it to advantage. I use both, and I can hardly say which seems to answer best, but I myself greatly prefer dry iodine cotton to the filthy glycerine tampon which, however, sometimes does excellent service.

In regard to intrauterine treatment I will say that I have almost entirely given up those remedies which have been so popular, iodine and nitrate of silver. Dilute carbolic acid, iodized phenol diluted with glycerine, pinus Canadensis, fluid ex-

tract of ergot, and dilute solution of perchloride of iron and of picric acid are the remedies I resort to when intra-uterine applications are called for. I must again most emphatically assert that serious injury has resulted from the use of strong applications which is so common. In cases in which the mucosa should be the site of treatment, mild applications are, as a rule, most advantageous—I say *as a rule.* Pure perchloride of iron, carbolic and even bromic acid give most admirable results as intrauterine applications in such cases as demand such active interference, but these are not numerous and afford distinct indications. Nitrate of silver I have not used for a great many years. Iodine I use sparingly.

It is impossible to follow throughout one method, but in the majority of cases I may say that better results are obtained by directing treatment to the greater mass of diseased tissue, and it is the safer course to rely for treatment of the mucosa upon the treatment of the entire uterus than vice versa. I much prefer to rely upon that one method in preference to any one other method; yet there are those cases in which the mucous membrane is diseased and the muscular tissue not affected, where, of course, nothing can supply the intra-uterine treatment. The method of intra-uterine treatment demands close attention; I myself have been extremely careful with it for fear of doing mischief. I look upon the applicator as well as the remedy used as an important consideration. The form of instrument as generally used I consider dangerous and inconvenient: consequently I have had applicators made which are smaller and more pliable than those commonly used. I find the best results from the mildest remedies sparingly applied, which are certainly preferable to the more severe remedies. Very frequently harm has been done by endeavoring to force a somewhat resistant applicator into the cavity; to remedy this and to facilitate medication, my applicators are made very soft and pliant. Of all remedies I much prefer the above mentioned, mild applications, sparingly used, and make a number of applications after first cleansing the cavity.

I trust that I have given you a satisfactory idea of the dry treatment and that you will share the preference which I give to this method as being more safe, more rapid, and more agreeable to the patient. My arguments are perhaps imperfect; I have by no means given them as I should like to give them, or in the shape I should like to make them, on account of lack of preparation.

I am treating a great many patients now throughout by this method,patients with profuse discharges who have been treated elsewhere for a long time by intrauterine applications; and records are carefully kept by others, gentlemen on the staff, who have observed the cases with me. Sometimes in three or four treatments the enlarged, inflamed organ has been markedly reduced,the discharge overcome, the engorgement diminished, the deep red color changed to a pale pink. Patients come to me with the stains of nitrate of silver or iodine upon their clothing, and these bear witness to the truth of their statement of their having been treated elsewhere by intrauterine applications. In certain of my clinical cases in which I should like to have made occasional intrauterine applications, I have deferred doing so, impelled by the wish to test the treatment, as I cannot test it in private practice, and I have found them yielding rapidly and surprisingly. In one case, for instance, of lacerated and eroded cervix with profuse discharge, a decided change was visible after the first treatment; after the second, the mucous membrane began to reform upon the erosion; and after the fourth, the large eroded surface was covered with mucous membrane, and the profuse discharge completely checked. In one such patient, a young girl with an acute or subacute inflammation of the uterine and the vaginal mucosa, with a discharge so profuse as to leave an erythema about the vulva of two fingers' breadth, caused by the acrid discharge, this was diminished after the very first treatment, and after four applications completely overcome: when she came for the fifth time this violent red erythema had so completely disappeared that even a discoloration of the skin was no longer visible. I merely mention these cases to prove the fact that the treatment will answer even where we might wish to add an occasional intrauterine application.

I wage no war against intrauterine applications as such, and freely admit their importance; they have their place and, under certain conditions, cannot be replaced. But I do deem it my duty to call a halt to their indiscriminate use; these applications should be limited and supplied by a safer method and one less painful to the patient.

I have probably spoken disconnectedly, but I trust that I have placed clearly before you the main features of this method, which has resulted from a combination and development of the meth-

ods I have depended upon in my practice during the past twelve years. I have been laboring in this direction constantly from the first attempts which I made following the precept of my revered instructor, Edward Martin, of Berlin, with tannin and powdered sulphate of iron internally applied to the uterus. So you will see that it is not from the flush of success in a few cases but after years of experience that I speak. The various cotton and jutes which I have been using are prepared by Van Ende, of Hoboken.

Dr. Scott.—I wish to say that the plan of treatment which has been suggested here by Dr. Engelmann seems to be a most common sense view; I have never had an opportunity of seeing it elsewhere; yet in my office practice I have adopted the plan for the last three or four years without knowing that anybody else was doing the same thing and without having spoken to anyone in regard to it. Many of the things which Dr. Engelmann has spoken of here to-night in the dry treatment I have used, and have been using for a long time. I have been using the powders which the doctor suggests, the most of them exactly as he has done, without the powder-blowers. I have been in the habit of using the tow or jute when I have had a uterus that was so much inflamed, was giving so much trouble that my patient could not wear a pessary, I have adopted the plan instead of the pessary. In many of these cases I have used a medicated cotton, as the doctor has spoken of, thoroughly wiping out the vagina. I have then placed it in its proper place without the glycerine. I can endorse and I suppose every one of us can endorse Dr. Engelmann in regard to glycerine being filthy or exceedingly unpleasant. All my lady patients upon whom I have to use glycerine wear a napkin from the office because of its unpleasantness. I use alum and sulphate of zinc. I never use tannin, because tannin on being dissolved stains the clothing. Now there is another point in which my experience does not agree with Dr. Engelmann's, that is, intra-uterine medication. I use iron but I seldom use nitrate of silver. I have an applicator made of silver which is very pliable, almost as pliable as Dr. Engelmann's, perhaps not quite. I have no hesitancy in using iodine and glycerine in combination. Now I do not like from my experience the use of these medicated bougies. I might say I have had but limited experience with medicated bougies. I can remember four cases perhaps in which I have used them. I have also used cotton, placing it with a probe or applicator in the uterine

cavity and cervix. And although Dr. Emmet in his work says that it can be left an indefinite length of time without producing any ill effects, in the four cases in which I have used it I was always uneasy, as it was followed in all of these cases by some uterine disturbance. Now for fear of such a complication, if I lose a piece of the cotton, I take great pains to find and remove it. I paint the cervix with iodine and use a tampon; and, as Dr. Engelmann has suggested, I use medicated tow and have done so for the last four or five years without knowing or thinking for a solitary moment that I was not doing exactly what any common sense man would do under the same circumstances. The secretions from the vagina cause the solution of the powders, and they act upon the vagina in that way. Where there is indication for a tampon or for a pessary and the womb is inflamed, I always use dry applications.

T. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting November 3, 1885—Dr. Delaney in the chair.

Diffused Uterine Fibroid.

Dr. Gregory said that six days before, assisted by Dr. Carson and Drs. Walker and Rhodes of Mexico, he removed the uterus with a diffused uterine fibroid from a lady 32 years of age. About two months ago he received a letter from Dr. Rhodes stating that he would send him a patient for the removal of an abdominal tumor. In due time the lady arrived and Dr. Carson and he examined her and found a uterine tumor, but decided that it was a case to be let alone, and advised the lady to return home. It had been suggested by the doctor who sent her that she might be pregnant. Dr. Gregory questioned her very closely and examined her with great care, but could not make out a pregnancy. As she insisted that there could be no such thing as that, that it was out of the question altogether, he passed a sound into the uterus. He told the doctor that there was a uterine tumor and that perhaps there was a pregnancy, although he did not think so. It proved, however, that she was pregnant. On her way home uterine pains began, and by the time she got home she aborted. After the abortion she did not recover from the pains, which appeared to be more severe and persistent. That went on for a month or six weeks,

and during Fair week the doctor came down and told Dr. Gregory that she had been sick ever since the abortion. He told him to give her opium, and if the pains became unendurable, so that life was irksome, it might be the best thing to make an exploratory incision and find out the exact condition of affairs, if possible; and if it were a proper case to remove the tumor. He wrote some ten days ago that the woman was suffering greatly and that life was in tolerable, and she was anxious to have something done. So he went to Mexico with Dr. Carson, and they determined to open the abdomen. After making the incision the womb came into view reaching above the umbilicus. They turned it out, constricted it with a clamp, and removed it, leaving the stump of the cervix in the wound outside of the abdomen, trimmed it off and covered it with iodoform. They remained two or three hours in Mexico after the operation but there was no shock. The appearance of the woman's countenance was good. The suffering was not extraordinary. He had not heard from her since.

Dr. Todd asked the doctor how old the fetus was that was aborted.

Dr. Gregory said it was supposed to be about two months. After they decided that it was a uterine tumor they concluded that it would be best to pass the sound, as she insisted that she was not pregnant. He thought, however, she would have aborted any how. The point of most interest was the great suffering. He had never read of any great amount of suffering in these cases, nor noticed it in any case under his own observation. The suffering was extreme in this case, else the woman could not have thought of subjecting herself to an operation, when it not only was not recommended, but when she was told it was not a proper case for an operation. But the efforts to dissuade her from the operation were in vain; and in the face of them she insisted upon it that life was intolerable.

MALIGNANT MAMMARY TUMOR.

Dr. Gregory further related the following case: He was called a year ago last May or June to remove a tumor of the breast, which did not appear to be a malignant tumor. It seemed to be cystic; in fact the larger portion of the tumor was a cyst. The tumor was not subjected to any microscopical examination. It seemed to be a cysto-sarcoma, and from its consistence it seemed that it was

largely fibroid. He removed the entire breast lest it might be malignant. In two months after the first operation he was written to again that the tumor was returning and they wished him to remove it again. He was annoyed and worried, but went and then removed the tissues of the entire locality, and exposed a surface as large as would be exposed had he removed her hip at the joint, she being a large woman. In the course of a couple of months he was again invited to remove this tumor, and so he had removed it seven times at least.

He had removed tumors that had recurred at the site of the original tumor or its neighborhood, and the secondary tumors were sarcomas of the round-celled variety, judging from their consistence and rapidity of their multiplication. The fifth time of their removal the tumor passed down between the ribs. He removed it and ligated the arteries which bled: when he had secured the intercostal artery, he left his forceps on the artery until the next Sunday, because he could not tie it. In less than two months the tumor was growing again, and he went and removed it the sixth time, and after removing the tumor passed a red hot cautery between the ribs in such a way that he thought it had certainly destroyed the root or base of the growth. In two weeks a growth was as big as an orange, it had vegetated so rapidly. Last Friday after removing most of the tumor down upon the ribs he found that this vegetation came through between the ribs. He determined to sacrifice a portion of the two ribs between which this tumor spread. He exposed the pleura and thoroughly cleansed out the cavity so that no sign was left of any of the tumor. He then applied the actual cautery; not touching the pleura, of course, but he touched all the surrounding tissues and put his little spade-like cautery under the adjacent ribs. He believed that few surgeons have had just such an experience. All his efforts seemed only to tend to reproduce this tumor, and as fast as it was removed it would grow again.

Now the woman's general condition is bad; until this last trip she did not look so pale. She seemed to be in fair health. She has occasionally some difficulty with breathing and some cough, and he feared the tumor would again sprout, that there must be some constitutional condition which reproduces this growth.

Dr. Leete said that this case illustrated a point which had often been illustrated before in similar growths, that neither by sight nor

touch is it possible in the removal of such a tumor to determine that you have removed all the abnormal growth. There was a time, not long ago, that reputable surgeons would unhesitatingly say they had removed an entire cancerous growth because the eye did not detect any nodular tissue left, and touch would not discover any appreciable change of the tissue as to its being harder or less flexible, less yielding, and yet experience similar to Dr. Gregory's has not been uncommon. A case in point was this: A large and well formed woman having the appearance of health when she came to the hospital said that she had been employed in a dairy a few miles from Philadelphia for months. On one occasion she was pushed by a cow one of whose horns struck her breast, and some days after she thought that there was a little lump coming. It presently began to break out by the nipple and was removed by Dr. R. J. Levis. The removal was so liberal that when he came to approximate the edges he found it necessary not only to use inordinately large silver sutures but to put the woman partially in a sitting position and to bend the body forward some. Then the granulations went on very handsomely for a time, until suddenly, probably within twenty-four hours, there was quite a marked change in the woman's condition. She became pale, there being a certain anxiety of expression that was alarming. In a little time the surface took on a bad appearance, she had trouble with her lungs, and sank, and died. A cancerous condition of the lungs was found underlying the gland that had been removed. Death resulted from cancer of the lung. At the time of the operation, Dr. Levis attached much importance to the fact that he had succeeded in getting away all the abnormal growth; and yet he had very signally failed to get it out. And he was by no means the only surgeon at that time who supposed that he could tell by the senses of sight and touch whether the part was normal or cancerous. Perhaps, if the question is ever settled, whether cancer is purely a local or a systemic affection, we may be in a better position to give an opinion whether a cancerous growth has been removed or not. He, himself, had long been inclined to think that the disease is the expression of a systemic condition by a local growth.

ST. LOUIS WATER SUPPLY.

Dr. Nelson read a paper on this subject (Vid. editorial in December COURIER).

Dr. Nelson said there were two or three other points with refer-

ence to which he would like to say a few words. One is with reference to the notorious Ferrenbach well on the corner of Eighteenth and Franklin avenue. Shortly after public attention had been called to it so conspicuously by Professor Potter's lecture and the dodgers which were circulated by the Sanitary Aid Committee, the proprietor, without any action condemning his well, took up his pump and covered his well with a large slab of stone so that when the inspectors came there was no well to be found at Mr. Ferrenbach's corner. Immediately after the well-closing ordinance had been repealed Mr. Ferrenbach took up his slab of stone and put in his pump again, and it stands there to the present time. Some weeks later, after the Board of Health had taken action condemning a considerable number of wells on private property, it had occurred to him that it was eminently proper that, inasmuch as the Ferrenbach well had been at the very bottom of this investigation in the first place, some action should be taken in regard to it. Accordingly, an analysis[1] was made according to the requirements of the ordinance, and that well was condemned. It was certified to the Street Commissioner, but whether anything further would be done or not he was unable to say.

Another point was that occasion was taken by the Board of Health in view of the interest which was taken by the public in this matter of pure water and of the statements which had been made that the water furnished by the City Water works was lacking in purity, to recommend, as a sanitary measure, a thorough chemical examination of the water from the river above the city, from the intaking well of the water works, and also from the main at some point within the city. The water commissioner responded very promptly and asked for some other suggestions which were made, and promised to have analyses made at as early a day as possible. Dr. Nelson had expected to be able to present the result of such an analysis to night, but found that it had not been concluded as yet. Further, in regard to the result obtained from the analysis of the city water, made by the three chemists referred to, the most able and exhaustive work which he had found anywhere on the subject of water supply and water works was that contained in the reports of the water department of Philadelphia. A good

1 The analysis showed 88 grains per gallon of solid matter, 4.2 grains organic matter, 15.1 grains chlorine, and of nitrates 9. Nitrites 0.42, free ammoniao .09, and albuminoid ammonia 0.12 parts per million.

deal of very interesting reading matter would be found in those reports for 1882, 1883 and 1884. The city of Philadelphia has been going into the investigation of the source of water supply over a more extended area than any other city in our country, and the results of the examination when completed will be the most exhaustive of any investigation of the sort in this country, and, with the single exception perhaps of the Rivers Pollution Commission of England, the most exhaustive and complete of any made anywhere in the world.

In the reports submitted by Professor Leeds to the water department of Philadelphia, is contained the result of an investigation for the purpose of establishing a standard. This is obtained by taking an analysis of forty different rivers that are used for furnishing water to cities, and which are considered excellent water supplies, and giving the amount of the various principal ingredients, free ammonia, albuminoid ammonia, nitrites and nitrates, chlorine and solids, etc.

One great difficulty that is found in obtaining satisfactory results in an investigation of this sort is that the chemists that are making examinations in different cities and different countries have no common mode of recording results; for instance, the reports of the Rivers Pollution Commission of England give the chlorine, total solids and organic matter in grains per gallon, and then give the rest in milligrams per litre, or parts per million, which means the same thing. The reports of Philadelphia and a number of others give their analysis in parts per hundred thousand; while others give all the results in grains per gallon. According to the standard adopted by the Philadelphia Water Department our water even accord.ng to the examination when it was least satisfactory last summer is still within the limits.

WATER FILTER.

Dr. Nelson presented here a model of a filter called the "Hydronette," believing that anything which would tend to render our water pure would be received with interest by this society. He said that he had used one of these filters in his house for the past six weeks and had been very much pleased with its action. It is of French manufacture and consists of two jars, the lower one being a simple jar with a faucet attached through which the water is drawn off, the upper one having a space in the bottom in which is inserted a thin

plate of French porcelain perforated with very fine apertures. The jar is filled to the depth of from four to six inches with thoroughly washed clear white sand, over which there is a perforated cover to keep the sand in place. This filter is capable of furnishing twenty-five gallons a day of filtered water. He had found that after filtering water for two or three weeks a sufficient quantity of organic matter was separated by the sand in the filtering process, so that it began to become offensive, and it was necessary to take out the sand and scald it, wash it thoroughly and replace it, when it was as satisfactory as before. It is very simple in its construction and convenient in its action. He regarded it as a matter of interest to all.

Dr. Leete asked Dr. Nelson if in what he said of the analysis of the river water, he was speaking all the time of water taken at Sixth and Locust streets on the third floor?

Dr. Nelson answered affirmatively.

Dr. Leete asked if he had any knowledge of the results of the analysis of river water made within a few months or a year or so, of water taken at the intake or elsewhere in the city?

Dr. Nelson said he had no information of any analysis made by any reliable parties as yet.

Dr. Leete then asked if he was cognizant that water was examined in the latter part of 1884?

Dr. Nelson said he was aware that Dr. Leete had told him some weeks ago that an examination had been made, but that it was not an official examination.

Dr. Leete said that the examination was made in the latter part of 1884, and showed conclusively that the water is quite as good as the best water that is supplied to any other cities: that is a correct statement. He asked what foundation the Board of Health had for the belief that the virgin soil uncontaminated by domestic occupancy furnished so much chlorine as to bring it far above the standard that was adopted by the well-closing ordinance?

Dr. Nelson said that as he had already stated in his paper the Board of Health then believed that they had reason for the opinion that chlorine is present in our water apart from any source of contamination. Speaking for himself, he was satisfied that the Board of Health was misinformed, and that there is no such prevailing existence of chlorine in our wells, as he did believe and as he knew his colleague believed at that time.

The chemist from whom he obtained the information that led him to that opinion first had told him recently that the result of these investigations had convinced him of the great value of chlorine as one of the elements of sanitary analysis, and he is now satisfied regarding the well on which he based his first statement before any examinations were made within the city, that the chlorine in the water was the result of contamination from a source of which he was previously unaware, but which has since been discovered.

Dr. Leete said that he had a paper dated October 3, St. Louis, which set forth in brief that water for examination was taken from the Klausman Brewery Company where the river water is used in large quantities from a large service pipe, giving a good sample of the river water as it is distributed in the city. The chemist finds to the gallon 0.835 grains of chloride of sodium; of sulphate of soda, 2.452 grains; of sulphate of potash, 0.625 of a grain; sulphate of lime, 1.633 grains; of carbonate of lime, 4.808 grains, or nearly 5 grains; of carbonate of magnesia, about 2.209; of alumina and oxide of iron, 0.547; of silica, 1.452 grains per gallon; of free ammonia 0.016, and of albuminoid ammonia 0.088 per million. The water was tested for nitrates, and they were not found to be present in appreciable quantities; it does not say anything about the nitrites.

An analysis of water taken from the intake at Bissell's Point Sept. 10, 1884, gives total solids, 7.26 grains per gallon; alumina and oxide of iron, 0.19; lime (carbonates and sulphates), 3.62; magnesia (in carbonates) 1.14; chlorine (in chlorides), 0.49 of a grain; sulphuric acid combined with sulphates 1.82; hardness 8 degrees. In that analysis nothing is said of nitrites or nitrates. He thought that at another part of the paper it appeared that there was no trace of nitrites. This paper speaks of the amount of free and albuminoid ammonia found in the London water, admitted to be as good as the best that could be obtained, and that found in the Boston water, and in forty odd specimens of river water, and states that the analysis of our water at the intake shows it is as good as the best.

He asked for solid reasons the question that he did, as to what induced the Board of Health to reach the conclusion that in the virgin soil there was such a quantity of chlorine that it was fair to believe that water containing much more chlorine than the stand-

ard set up by the well-closing ordinance should be regarded as consistent with the fitness of the water for domestic use. He had learned from Dr. Nelson that the action of the Board of Health was based upon a report concerning a certain well in the Florissant Valley, about seven or eight miles from the city, so situated as to be free from any source of contamination, but which yet showed seventeen grains of chlorine per gallon with no trace of organic matter.

He learned that the place in the Florissant valley where the well was located which was supposed to contain seventeen grains of chlorine per gallon and no organic matter, is upon rather elevated ground, but on the edge of the valley, on this side some six or eight miles out. A sink which receives the kitchen slops from a house of twelve or fifteen rooms, is about forty feet from the well. The drain from this sink empties upon the surface 60 feet from this well. An old privy was situated about twenty-five feet from the well, and seventy-five feet away there is a new privy. Farther away is a barn. The well itself is a dug well, about one hundred feet deep. It is served with a windlass and twin buckets, one of which comes up when the other goes down.

Dr. Nelson said he understood it to be a fact that the existence of that old privy was not known by this chemist until recently.

Dr. Leete said that he believed that the theory upon which the condemnation of wells was urged here was a good and sound one, and that it should lead to a very thorough study of the whole subject of the pollution of water used for domestic purposes, whether from wells, cisterns or other sources, and that it is true that whether in crowded localities or in ordinary isolated residences the presence of chlorine in wells and cisterns that are not salted is an indication of impurity.

This idea of putting salt in wells to kill bugs, etc., and then claiming that it is healthy was not exactly the thing; he did not believe it was in accordance with common sense. He thought the view a sound one and in accord with the best knowledge in respect of what constitutes wholesome water, that wherever there is above six grains or even three or four grains of chlorine per gallon in the water, and there are stables, manure heaps, and cattle yards representing the excrements of animals, and privy vaults representing the excrements solid and liquid of human beings, the chlorine is an expression of contamination from those sources.

Therefore it had been a matter of great surprise to him that wells coming before the Board of Health have been passed to all intents and purposes as containing wholesome water, when containing as high as 23 grains of chlorine to the gallon, and that quite recently; and if one should read through the whole record of these wells it would be surprising indeed.

Conversation with different analytical chemists and reading had taught him that it is a most difficult thing to determine, not the presence of nitrites, but the quantity of nitrites present, so that when an analytical chemist undertakes to makes the presence of nitrites the gauge of the purity of the water he undertakes the most difficult work that an analytical chemist is called upon to perform.

Personally he was very sorry that the Board of Health happened to get such advice as it did. He thought it had done incalculable damage. That advice, acted upon as it had been and coupled with some hints that had been thrown out by others, had resulted in strengthening very much the opposition to the abolishing of wells containing impure water in this city.

There was no doubt at all in his mind that the lesson taught and shown by the records of the health department in respect of unwholesome water, as found in wells and cisterns in this city, is plainly this: that in those districts in this city, take them by wards if you please for convenience, where the largest number of people drink well or cistern water, there you will find the highest rate of sickness from diarrhea, dysentery, diphtheria, typhoid fever and scarlet fever, and there they spread with the utmost facility; and in those very places, during the cholera epidemic of 1866 and 1867, he knew from his own observation that cholera raged most fearfully, was severest in its type, and most destructive in its effects. Judging from past experience, if cholera comes again and the people go on using this water, we shall have further corroboration of the correctness of the proposition that not only the death rate but the rate of sickness depends largely upon the quality of the water that is constantly used.

He believed it to be a fact that when he brought forward this matter of the importance of looking into our water supply for the purpose of closing up wells and cisterns, in the Commercial Club at a meeting in the latter part of 1884, it was generally regarded as a trivial matter. He made such a report that it claimed their attention

and out of it grew the work that finally resulted in the well-closing ordinance.

A committee comprising twenty of their strongest men labored earnestly with the members of the Municipal Assembly to teach them the importance of doing this. These gentlemen made a business of it, gave up their own business to attend to it, and at last went there and sat up with them; and Dr. Leete believed that they shamed them into passing the ordinance. The weather being very hot, and a great many of the gentlemen having left the city, as soon as they were scattered the opponents to the well-closing ordinance in about a month undid what had required four or five months to accomplish. Both branches of the Municipal Assembly were ready to do the bidding of the saloon keepers and tenement house owners; and the Mayor was ready to help them out, although he had given his promise positively. When there was a feeling that the ordinance would pass the Council, and when it passed the House of Delegates, he said in substance, "I don't believe they can bring pressure enough to get it through the Council, but I promise if they do I will veto it." The Council did pass the ordinance. The Medico-Chirurgical Society thought it a matter of sufficient importance to prevent the repealing of the ordinance to send a committee to remonstrate with the Mayor against indorsing the action of the Municipal Assembly. They went there and made a clear and full statement of the facts that were pertinent. All this went for nothing; the Mayor was dogged by the saloon men and by the tenement house owners and well owners and did their bidding.

Dr. Leete believed he was even threatened and told he *must* do their bidding, *threatened by low politicians.*

In view of all that had been said of our water supply by Dr. Nelson he would repeat that in the latter part of 1884 an analysis of the water supply showed that our city water was as good as the best. He knew that there are times when the water is far from the best and far from what any right-minded sanitarian would wish it to be; but we cannot do any better until we move the intake farther up; it ought to go up to the Chain of Rocks. A good deal of work has been done in that direction and the help of every physician in this city is needed. When the matter comes up before the Municipal Assembly, let them take the members in hand and instruct them that it is not only an advisable thing but a necessity that we should have a better supply of water.

Dr. Frank Glasgow thought it due to the health and sanitary condition of this city that the society should not pass by the recommendation of a filter without saying a word. While in the hands of the right people it is no doubt a very good thing, it will fall into the hands of people who have no idea of cleanliness, and in that case it would be far better that they should drink unfiltered water; because, if the filter is allowed to remain uncleaned for a short time, the accumulation of matter will soon render the water which passes through it much more noxious than it would be were it not passed through the filter.

Dr. Nelson said that he was not here for the purpose of defending the Board of Health. As one of that body he was not disposed to deny that they might have made some mistakes, perhaps some very serious ones, but whatever mistakes were made were made not at the dictation of the well owners or at the dictation of any one else, but conscientiously and honestly, because they believed they were acting in the right direction and in accordance with the best light they could obtain. In regard to the question whether or not it is a common practice to salt wells, which some present seemed to doubt, he would ask some gentlemen who are more familiar with the German element of the city whether it is a common practice among the Germans to salt their wells?

Dr. Tuholske had heard a good many people say that they had done it.

Dr. Leete asked if that was after the chlorine test was abolished.

Dr. Tuholske said it was about that time.

Dr. Wall said he believed it was not an uncommon practice for the Germans to put salt in their wells; some people say that it improves the taste of the water and they put it in for that reason. He had heard it as much as twenty years ago and had heard it very frequently both before and after the ordinance was passed.

Dr. Nelson said that he certainly did not wish to be understood as taking a position in any way antagonistic to the importance of an extended use of our river water. He was as enthusiastic a believer in the excellence of the river water as Dr. Leete could possibly be. No one could have been more astonished than he was at finding the state of facts announced in the chemical analysis quoted, that the river water at that time contained within .01 part per gallon of the quantity of albuminoid ammonia which Wanklyn gives as that which should absolutely condemn the water as un-

wholesome. Without reference to any other statistics W. says, water containing 0.15 parts per million should be condemned. When we find our Missouri River water as given to the people of St. Louis containing 0.14 parts per million it is rather a bad and startling fact. Since then he had found that a much wider latitude is allowed by Professor Leeds as the result of his extended observation and examination of river water in this country. He believed that the water, even as it existed on the 29th of August, was not water that we need be at all afraid of, and the fact that the river water at certain periods for two or three days in the course of a year or even for a week or so is not such as we should most earnestly wish that the water supply of a great city should be, yet is no reason for condemning the water. He most certainly would emphasize the necessity of the change which Dr. Leete had spoken of in regard to the removal of the intake to the Chain of Rocks or to some other point where it shall be entirely free from the possibility of contamination. No one who has ridden up in the northern part of the city and who has seen the large number of manufactories which exist up there and which are constantly being increased above the source of water supply will doubt the necessity for this measure. The source of supply should be moved further up so as to avoid these factories. One simple lesson in that is in the greater degree of hardness which is found in the water as it is taken at the works at Bissell's Point and that which is taken at the Chain of Rocks or any point above there. The explanation which has been given, and probably the correct one, is that the lime that is used in the tanneries to take the hair off from the hides and which is used in other manufactories in the neighborhood above Bissell's Point accounts for the additional quantity of lime found in the water. Of course the addition of the lime has no special import from a sanitary stand-point; but when the lime comes in from these hide houses, tanneries and factories, pollution of the water will also take place because there will be other matters poured into the water. One word more he would say in defense of Mayor Francis, which he thought due to him in connection with what he had said in regard to the views which were held by the Board of Health at the time in regard to this chlorine matter. He knew the Mayor was influenced considerably by the fact that the Board of Health believed and stated definitely to him that they were convinced from the statements which had been made to them that the

chlorine test was not one which was reliable and to be depended on, and he believed that that had considerable influence with him in leading him to approve the ordinance.

In regard to the matter which Dr. Glasgow referred to, as a matter of course anything which is not properly used may be a very great abuse. Those who use a filter should keep it clean; if they have a due sense of the necessity of cleanliness there would be no difficulty at all.

Stated Meeting, November 17, 1885.

TRANSPLANTATION OF SKIN FLAPS WITHOUT PEDICLE.

Dr Post presented a patient, and said that while the case had been fully published in the *American Journal of Ophthalmology* for October he thought it would be of interest to bring the patient here. The cause of the operation was the drawing up of the lids so that they did not close the eye completely, consequently exposing the cornea. That exposure produced keratitis that was going on to ulceration. The cornea was rapidly thickening; it was dermoid in its appearance.

The point in interest here was the flap operation itself. In this country the first use of flaps for covering exposed surfaces is attributed to Frank Hamilton, but his first successful operation was in 1854 or 1852. In his case the flap taken from one leg was only partially separated and applied to the other, the legs being bent together so that the vitality of the flap was maintained while it was adhering to the granulating surface; and when the adhesion was complete, it was cut loose, and served its purpose very well. Later, in 1869 grafting became the fashion, and the minute grafts and larger grafts were advocated on every hand. The first operation about the eye is attributed to Wolf, of Glasgow, in 1874.

The first operation in this case was performed November 15, a year ago. The flap was taken from the inside of the right arm and was applied upon the left upper eyelid. After making an incision near the border of the tarsal cartilage and dissecting so as to allow the lid to close easily. Of course one of the first things to secure was immobility of the surface to which the flap was to be attached. That was attained by stitching the lids together, passing threads through the edge of the lid but not encroaching

upon the conjunctival sac, the stitches not touching the globe. Then the lashes of the upper lid were kept in contact with the lower lid by means of collodion, bringing about the greatest amount of immobility possible. Then the flap was taken from the right arm. The flap, as seen now, is from an inch and a quarter to an inch and a half long, and the original flap was something over two inches in one direction by about an inch in the other. Of course it was made larger than the space that was intended to be covered, in order to allow for the contraction of the skin when loosened from its underlying tissue, its natural contractility. The most important point in the operation he believed to be getting the flap absolutely free from subcutaneous tissue. He believed that the portion which gives successful results is the mucous layer; its cells being of such primitive order that they are able to maintain their vitality. After dissecting the flap with a great deal of pains he was very careful in going over it with forceps and scissors and knife, to get it as clean as possible. Another point was to make as little manipulation as possible. In order to attain this the original incision for the flap included a little extra skin so that in handling and holding it the portion to which the forceps were attached could afterwards be cut off so as to have as perfect a flap as possible. Then he took great pains to have the denuded surface absolutely free from blood clots, but with a slight glaze of serum or albumen. He thinks this gives the best condition for the growth of the cells to the mucous layer. The whole operation required nearly two hours.

In dressing the left eye he took small pieces of handkerchief, perhaps 2 x 10 mm. and fastened them over the flap with collodion in order to hold it in place, then took gold beater's skin and put over that and at once applied cotton with hot water. Leaving that on for perhaps ten minutes he then replaced it by other cotton, also saturated with hot water but wrung out as dry as possible. He covered that with dry cotton and left it in place.

In the second lid, the right eye, the operation was the same, only in that eye the flap came from the left arm, and a part of the flap along the upper margin sloughed. This sloughing was probably due to her condition, as the first arm healed in four weeks, and the one from which was taken the flap which sloughed required two months and a half before it healed. At the same time she was obliged to take large doses of quinine and general tonic treatment.

In the second operation he did not use collodion, finding that the gold-beaters's skin makes a most excellent plaster itself and holds everything nicely in position.

Fistula of the Mastoid Cells.

Dr. Todd read a paper on Fistula of the Mastoid Cavity of the Ear, and showed syringe which he used for the treatment. Vid. p. 13.

Dr. Alleyne asked if when that process of suppuration runs on there is not likely to be a general inflammatory action about the meninges.

Dr. Todd said that it is to be expected if the destructive process is continued. He recollected a bright child about 11 years old upon whom he made a *post-mortem*, the symptoms having indicated a sudden compression of the brain. He found a large abscess in the middle lobe of the brain connected by a small opening in the dura mater with the temporal bone. The bone is quite a thin shell there. The abscess had been carried for months and the boundaries were quite solid.

Dr. Prewitt recalled a man who had been under his treatment who has a suppurative discharge from the right ear, and who says that he has had what was called inflammation of the brain in connection with it. He now very often has pain over the whole side of the head. Probably the first attack was meningitis, yet he recovered.

Dr. Todd thought it might have been merely a congestion, not going on to suppuration.

Dr. Fry asked whether after one has established the diagnosis in such cases as Dr. Todd had spoken of, he does not think it would be advisable to open into the mastoid cells for treatment.

Dr. Todd thought that in the light of modern advancement in surgery, this would be done; but naturally surgeons do not very much fancy opening into the cavity for fear of exciting serious trouble. It is undoubtedly the proper thing, especially where meningitis is expected. A free opening should be made and the cavity well syringed out with disinfectants and drained.

Dr. Fry asked further under what circumstances, if any, the cellular structure of the mastoid cells is apt to be ossified, that is, the whole to become solid. He thought that he had seen specimens in which there had evidently been inflammation in these parts, where the cells seemed to have been closed up by the part becoming solid through a process of ossification.

Dr. Todd said that sometimes that is found in attempts to trephine, the mastoid cells being obliterated by a deposit of bone so that an instrument has to go to quite a depth before the cavity is reached at all.

THYROIDECTOMY.

Dr. Prewitt presented a patient, a lad, aged 15, who came to him about October 7, with a tumor that was giving him a great deal of distress; yet he had only recognized its existence for four months. It extended to the level of the thyroid cartilage and dipped behind the muscles of the neck and down below the level of the clavicle. In spite of the rapidity of its growth, it was still very hard. He couldn't walk for any distance or go upstairs without a feeling of suffocation, and he was troubled at night in the same way so that he could scarcely sleep. He had been taking iodide of potash all that time without any effect. The growth continued to progress, and he was exceedingly anxious to have it removed, although the dangers of the operation were thoroughly and frankly indicated to him. October 7 Dr. Prewitt operated by making an incision from a little below the chin down to the suprasternal notch and a transverse incision in order to reach the base of the growth. After he had dissected down upon it somewhat, dividing the superficial fascia and cutting down into the so-called capsule, he ligated both superior and inferior thyroid arteries, dipping down and cutting under and tying the thyroid arteries. It was attached between the trachea and cricoid cartilage so very closely that it gave some trouble in raising it. He made a double ligature because there seemed to be quite a number of bloodvessels running through the pedicle. The bleeding was insignificant, not over four ounces of blood. The trachea was flattened from side to side quite low down just above the sternum. The patient got along admirably and had very little trouble. His temperature at one time rose to 101° but it soon fell to 100° and gradually subsided to the normal and his recovery had been steady during the whole time.

Dr. Mudd thought this specimen of interest as showing the rapidity with which some growths develop. Of course these growths may attain considerable size before they are noticed, but it is also a fact that they grow rapidly. One may carry such a tumor until it is pretty well developed before he becomes aware of its presence. About a year ago last June a patient, 19 years old, came under his

observation with a fibrous hypertrophied thyroid, who had had the tumor for some two years. He had shown it to a physician who had not made much of it, and he, concluding that it didn't amount to much, had allowed it to go without much observation, attending to his business as a clerk continuously. He went out one evening to spend the evening with some ladies, got home about ten o'clock and went to bed. He woke up in the night feeling thirsty, or at least that is what his companion said, and started to get a drink of water. He walked across the room towards the water, but didn't get any, and came back and sat on the edge of the bed and then tumbled over into bed. There were three persons sleeping in the room, two in one bed and one in the bed opposite. The man in the bed opposite, recognizing that something was wrong, got up to see, and found that he was unconscious. A physician was sent for, but he failed to get any relief until his call the next morning, at which time Dr. Mudd saw him. At that time the young man had been unconscious for quite a while. His lips were blue; he was very pale. He was raised, with his shoulders elevated and head thrown back so as to stretch the tissues over the neck and make them as tight as possible about the trachea, and he had lost all sensibility. There was no time for delay. The doctor could feel very distinctly the isthmus of the thyroid. He pushed it upwards and inserted his knife, denuded the tissues of the trachea under the isthmus, and opened the trachea. He then passed an ordinary tracheal tube into the opening. It was insufficient to give any relief. He took it out and sent for a catheter. He got first a soft English catheter, and passed that down into the trachea for a distance of three inches and could feel distinctly the point of the obstruction of the trachea opposite the upper border of the sternum, at which point the trachea was constricted. He then sent for a metal catheter and bent it so that the extremity would pass down the trachea below the point of obstruction for a distance of two and a half or three inches. This man remained unconscious until five o'clock in the evening, longer than he ought to have done if it had not been for the obstruction of the trachea. For we know these patients who suffer from the result of stenosis recover rapidly when the stenosis is relieved, but in his case he recovered consciousness slowly. He did recover consciousness, however, and at the end of the third day he had a temperature of 102° and with very marked prostration. It was then thought best

to make an effort to extirpate the gland. He lost considerable blood during the operation, although it was not a very long one. When the trachea was bared, it was found to be flattened for a distance of an inch and a half, over a space of three or four of the tracheal rings, so that the transverse diameter was very much less than the antero-posterior, and the tissues were flabby; the part did not possess the normal oval outline. However, by a little pressure upon the anterior wall of the trachea it maintained its position and the soft parts were simply allowed to rest against the trachea. After the removal of the gland this patient made a good recovery, and there is no evidence of any return of the tumor. He seems better and more fleshy than he has ever been before. This obstruction came evidently from a sudden movement of the neck. There was collapse of the trachea which had already been weakened by pressure of the part and absorption of its tissues. The tumor removed weighed something over a pound. It was larger than the one that Dr. Prewitt has here, but the patient was a taller boy.

Dr. Prewitt said that during the operation, when the patient was under the influence of the anesthetic, he breathed with so much difficulty that they were afraid he would suffocate, and in fact his breathing almost seemed to stop. He did not pursue the course which has been recommended, after cutting down and separating the tumor, to open the capsule and tear out the gland and stop the hemorrhage afterwards. He was much surprised that surgeons should attempt so formidable an operation in that way, because the blood vessels are very often quite large, and the patient would be certainly in danger of bleeding to death if these large blood vessels were not tied. He tied the superior and inferior thyroid arteries before he attempted to tear out the gland. Although he didn't find it necessary to apply a great many ligatures to the pedicle, he applied a double ligature, as the tumor was attached to the trachea by very firm attachments. Cases in which these growths exist for some time before the patient observes them, so that they have grown to a very considerable size before the patient is aware of it, are the most dangerous to remove, because they may be adherent to large blood vessels. It is certainly interesting to watch the course of these cases, to see if they develop anything of the goitrous cachexia that is said to follow the removal of the thyroid gland.

APPARATUS FOR HIP-JOINT DISEASE.

Dr. Steele brought forward an apparatus for hip joint disease in the earlier stage and placed a patient upon it to illustrate his method of treatment. The apparatus consists of a rectangular frame of flat iron which should be five or six inches longer than the patient and a trifle wider than the distance from acromion to acromion. This is covered with canvas or stout cotton cloth laced tight upon the frame, an opening being left at the centre, corresponding to the nates for convenience in attending to the wants of the patient. Sometime ago he exhibited to the society a portable splint for the treatment of hip joint disease in the later stages. The chief elements in the treatment of these inflammations is rest. In hip joint disease we have an inflammation, and the therapeutic agent that would first suggest itself as most natural would be to keep the parts perfectly quiet. This is a very simple thing in theory but there is some practical difficulty in carrying it out. This splint is made in such a manner that the patient can be carried about upon it. The great objection to most splints is that they allow more or less motion in the joint, and, if the patient is moved about, inflammation may be excited. In the earlier stage of hip-joint disease and in the very young it is better to confine the patient on his back by using this splint. This apparatus he had presented to another society on a different occasion, but it had never been exhibited in this city before. The patient lies upon this apparatus and there are shoulder straps which pass over the shoulder and prevent the patient from raising the trunk. Perineal straps, attached above to a steel arm springing over from the side of the splint and fastened below to the canvas, afford counter-extension. A little steel upright at the foot of the splint affords means of attachment for adhesive straps making extension. Two little removable arms or legs can be attached to the apparatus to raise the patient. This can be done by the attendant or nurse so that the bed pan can be placed underneath. The use of this appliance for two years had given complete satisfaction.

At the only hospital in which hip-joint disease is exclusively treated—the one in London of Mr. Howard Marsh—he confines his patient by straps to the bed. He uses adhesive plasters attached to a weight for extension, and elevates the foot of the bed to produce counter-extension. His results are not most promising, Dr. Steele thinks because he does not thoroughly immobilize the

joint. He allows the part to move about more or less. After exhibiting the apparatus a little patient was brought in and the mode of application was shown. It was shown that by placing him upon this stretcher splint and making the attachments, he could be carried anywhere. The apparatus serves as a stretcher, and at the same time it acts as a splint. Both arms, the head, and one lower limb are left free, so that he can play with his toys, and children soon become quite contented. Mothers sometimes say it would be better for children to die than to be confined in this way, but they are very well satisfied with this confinement. Extension is to be made not only upon the leg, as this may cause trouble in the knee-joint, but upon the entire limb.

Dr. Prewitt said that he was indebted to Dr. Steele for this suggestion, and for something like two years had been using it and had been greatly pleased with the results. He thinks it is an admirable apparatus. He uses a piece of tubing at the foot and makes an elastic extension which he thinks possesses some advantages. One patient from Fort Worth, Texas, started home a day or two after the apparatus was applied, and letters since received speak of the rapidity of the progress of the case and the speedy recovery of the patient. He had used this apparatus in every case which had presented itself within the last two years since Dr. Steele called his attention to it, in fifteen or twenty at least.

THE ST. LOUIS TRAINING SCHOOL FOR NURSES, 1510 Lafayette Avenue, has recently reached the second anniversary of its organization. The course has a duration of two years, and the first graduates will soon receive their certificates. The greatest care is taken not only in the practical instructions given, but also in the selection of suitable and promising pupils. Dr. D. V. Dean, the Superintendent of the City Hospital, where the pupils are employed, has been from the begining a hearty sympathizer and co-operator in this enterprise, and much of the credit of the success, for which so many have labored, is due to him. There is now room for more pupils, and physicians can be of service to the school by directing to it for admission applicants of good health and character, who have had a good common school education and are between 25 and 30 years old. All expenses are paid from the beginning and the employment is eventually lucrative.

SELECTION.

ON FEEDING THE SICK.

By Wm. Roberts, M. D., etc., Manchester, Eng.

[Extract from Address in Therapeutics before the British Medical Association, 1885.]

We may distinguish in a rough sort of way the patients who seek our aid in the matter of diet into two classes—namely, first, those who are able to take and digest solid food, and to conform in the main with the general dietetic habits of healthy people; and secondly, those more seriously sick, who can take little or no solid food, and must be fed on a plan deviating widely from the common custom.

Feeding the Sick with Solid Food.

The great majority of our patients belong to the former class, and are able to use the ordinary diet. They consist of invalids who are suffering from various ailments of the slighter sort, or from some more serious disease which does not interfere radically with the digestive functions. In regard to all these I take it that (except in special cases, which I do not propose to consider) it is a sound canon of practice to adhere to the main features of the current dietetic habits, and to avoid teasing our patients with irksome and needless restrictions for which we cannot give a clear reason. Diversity and variableness are marked characteristics of the dietary of the leading races of mankind, especially among the easier and more successful classes. The multifariousness of our eating and drinking is something very remarkable, and contrasts strongly with the monotonous fare of the less advanced races and of the lower animals. Scarcely any two of our meals are exactly alike. Not only do the several daily meals—breakfast, dinner, etc.—differ from each other, but the breakfast or dinner of one day usually differs more or less from the corresponding meal of another day. This variableness or diversity, we cannot doubt, fulfils some useful

purpose beyond the mere gratification of the palate. It may therefore be inferred, that to prescribe a monotonous regimen is to contravene a beneficial rule, and to depart from a salutary principle in human dietetics. We know that a healthy man soon rebels against a daily repetition of the same dishes, however wholesome and savory; much more an invalid, with weak appetite and feeble enjoyment of his meals, who craves for more change and variety than the robust.

Another part of our duty is to study the peculiarities and idiosyncracies of the invalid's stomach. Our stomachs are nearly as individual as our faces, and are very peremptory in regard to their likings and dislikings. In adapting diet to these idiosyncracies, it is, however, a good rule, as far as practicable to lessen the quantity of the offending articles rather than to forbid them altogether; or, if they must be forbidden, to provide in their place substitutes of kindred nature. The practice of forbidding fresh vegetables and fruits is especially open to objection. These articles, in addition to their use in promoting the peristaltic action of the intestine, have important antiscorbutic virtues; and although in these days, and among our own people, we almost never meet with fully developed scurvy, we are probably, without knowing it, often in the presence of incipient or larval scurvy. As there is a pre-arthritic stage of gout—a dietetic disease at the opposite pole of the feeding scale—so likewise, we may presume, there is a pre-hemorrhagic stage of scurvy. I have sometimes observed the existence of a low standard of health, without any very definite symptoms, which I could only attribute to a too protracted abstinence from fresh vegetables and fruit. I think it is possible to go too far in humoring a capricious stomach; and that, in persons of a hysterical or neurotic constitution, a too indulgent consideration for the ease of this organ may entail disadvantages in regard to the general nutrition of the body, and produce effects which, in the long run, tend to lower the level of health, and even to aggravate that gastric sensitiveness which we are seeking to abate.

I need hardly say that due mastication and cooking of the food are essential to easy digestion. Perfect cooking is especially important in regard to farinaceous articles and fresh vegetables. These are often imperfectly cooked, and thereby rendered difficult of digestion by invalids. The bad reputation of potatoes and pastry in regard to digestibility is chiefly due to the fact that they are often imperfectly cooked.

A matter of considerable interest and importance is the regulation of the accessories which we use with our food. The chief of these are the various kinds of alcoholic beverages, and tea, coffee and cocoa. These articles are usually taken with meals, and they mingle in the mouth and stomach with the food, and thereby directly complicate the task of the digestive organs. In the course of last year, I subjected the effects of these accessories on salivary and peptic digestion to a somewhat extended experimental inquiry. The time at my disposal will not permit me to lay before you the details of these experiments; but, as they will be shortly published, I may ask you to take them for the present on trust, and to allow me to indicate some of the conclusions and lessons which appear to be derivable from the inquiry.

In studying the influence of our food accessories on digestion, it is necessary to distinguish sharply between their action on the chemical processes, and their action on glandular and muscular activity. These two actions are quite distinct, and generally opposed to each other; for, while all the food-accessories were found to exercise a more or less retarding influence on the speed of the chemical process, some, if not all of them, exercise a stimulating influence on the glands which secrete the digestive juices, and on the muscular contractions of the stomach. It is also necessary to distinguish between the effects of the food-accessories on salivary digestion, and their effects on peptic digestion, inasmuch as wide divergencies were found to exist in this respect.

The distilled spirits—brandy, whisky and gin—were found to have but a trifling retarding effect on the digestive processes, whether salivary or peptic, in the proportions in which they are commonly used dietetically. Their obstructive effects only became apparent when used in quantities which approached intemperance. Taking this in conjunction with the stimulating action which they exercise on the glands which secrete the digestive juices, and on the muscular activity of the stomach, their effect in these moderate dietetic proportions must be regarded as distinctly promotive of digestion.

Wines and malt liquors exhibited an action differing considerably from that of ardent spirits. Wines were found to be highly inimical to salivary digestion. Even very small quantities of sherry, claret, hock or champagne inhibited the action of saliva on starch to a very high degree. This is due to the considerable acid-

ity which all wines possess. When this acidity was neutralized by the addition of an alkali, the inhibitory effect of wines on starch-digestion was entirely removed. It is a common practice, as you know, to mix wines—especially sherry, claret and hock—with soda, seltzer, or some other effervescent table-water. These waters all contain a charge of alkaline carbonate, and it was found that, when wines were thus mixed, they ceased to embarrass salivary action. This practice may, therefore, be looked on as highly commendable in the case of persons of weak digestion.

On peptic digestion, wines exhibited a retarding effect altogether out of proportion to the alcohol contained in them. Both the stronger and the lighter wines, except in very moderate proportions, checked the speed of peptic digestion. In the customary dietetic use of wines with meals there is, probably, a double action; on the one hand, a stimulating action on the secretion of gastric juice, and on the muscular contractions of the stomach; and, on the other hand, a retarding effect on the speed of the chemical process. In the case of persons of weak digestion, wines should be taken sparingly, and the quantity so adjusted as to bring out their stimulating action without provoking the retarding effects which is sure to follow their more liberal use. Champagne was found to have a distinctly less retarding power than an equal volume of claret or hock. This I judged to be solely due to the mechanical effects of the effervescence and liberation of gas, whereby a more efficient stirring up of the digesting mass would be effectuated. Effervescent wines, therefore—other things being equal—favor the speed of peptic digestion more than still wines.

The effects of tea, coffee and cocoa exhibited some interesting diversity. It was found that tea had an intense inhibitory effect on salivary digestion; even in very minute proportion, it completely paralyzed the action of saliva. On the other hand, coffee and cocoa had only a slight effect on salivary digestion. The inhibitory action of tea on saliva was found to be due to the large quantity of tannin contained in the tea-leaf. Some persons have supposed that by infusing tea for a very brief period—two or three minutes—the passage of tannin into the beverage could be avoided. This, however, is a delusion. Tannin is one of the most soluble substances known; it melts like sugar in hot water. One gentleman of my acquaintance, in his horror of tannin, was in the habit of preparing his tea by placing the dry leaves on a paper filter, and

simply pouring on the boiling water. In this way he thought to evade the presence of tannin in his tea. But if you try the experiment, and allow the product, as it runs through the filter, to fall into a solution of perchloride of iron, you will find that an intense inky-black coloration is produced, showing that tannin has come through in abundance. You can no more have tea without tannin than you can have wine without alcohol; and I found, experimentally, that tea infused for two minutes had almost exactly the same inhibitory effect on digestion as tea infused for twenty or thirty minutes. If you wish to mitigate the effects of tea on salivary digestion, you should direct the patient not to sip the beverage with the meal, but to eat first and drink afterwards. In this way, time is given for the saliva to perform its functions unhindered. Another device is to introduce a pinch of carbonate of soda into the tea-pot; this removes the deterrent effect of tea on salivary digestion; it is a practice occasionally followed in some households, under the idea that soda helps to extract the virtues of the tea-leaves. It was found that the addition of so small a proportion as one per cent. of the weight of the dry tea greatly mitigated its injurious effects on starch digestion, and that twice this quantity (two per cent.) almost entirely removed it. This latter proportion corresponds roughly to ten grains of bi-carbonate of soda to an ounce of tea-leaf.

The effects of tea, coffee and cocoa on peptic digestion were found to be as nearly as possible alike for infusions of equal strength. All these exercised a retarding effect, when their proportion in the digesting mixture rose above twenty per cent. These beverages should, therefore, be taken very moderately by persons of weak digestion. The good reputation of cocoa in regard to digestion seems to be wholly due to the fact that it is used in weaker infusions than tea and coffee. The directions for the preparation of this beverage, printed on the packets of cocoa sold in the shops, indicate a strength of about two per cent.; whereas a medium tea is usually made of a strength of four to five per cent., and a medium coffee of a strength of five to seven per cent. The strong coffee which it is customary to hand round after dinner must have a powerful retarding effect on gastric digestion; and, although this practice may be salutary to robust eaters, it is not to be recommended to those of feeble peptic power.

FEEDING THE SICK WITH LIQUID FOOD.

In a considerable number of conditions, our patients are unable to take solid food, and are reduced to the necessity of using food which can be administered in the liquid form. This is usually the case in the febrile state and in serious organic disease, especially of the abdominal organs, and in the terminal stages of almost all diseases. There are other conditions in which, although the patient may have the ability to take solid food, it is not desirable that such food should be administered to him. In narrowing of the pylorus or other part of the digestive tract, in ulceration of the intestinal mucous membrane, it is obviously undesirable to administer articles of food which are capable of forming lumps or masses which may block up the narrowed parts of the intestinal tube, or irritate the ulcerated surfaces. There is thus a large field for the employment of liquid food; and one of the most embarrassing tasks in clinical dietetics is to devise food in this form in sufficient change and variety, and having at the same time an adequate nutritive value. Our resources in this state of things consist of milk, beef-tea and other meat-decoctions, cold-made meat infusions, raw eggs, and the various gruels. I propose to make some remarks on each of these articles.

Milk.—By far the most serviceable liquid food we possess is milk. Milk contains in almost equal proportions, proteid, saccharine, and fatty matter, and is capable alone, as we know, of sustaining life. All plans of feeding the sick on liquid food centre round milk. It can be given alone, or mixed with tea, coffee or cocoa, or with lime-water, soda-water, ardent spirits, or with farinaceous gruels of various sorts, or as buttermilk, koumiss, or whey. Were it not for the necessity of change and variety, we should, in a large number of cases, want nothing but milk. It should, however, be remembered that milk is by no means a perfect kind of liquid food. In the course of its digestion, both in the stomach and in the intestine, milk, or rather the casein contained in it, is coagulated into solid masses, and these masses have to be redissolved before they can be absorbed. Not infrequently, if milk be given too freely, these curdy masses fail of being dissolved; and they pass down the intestine more or less unchanged, and are ultimately discharged with the stools. In this way milk may become an objectionable form of liquid food; these curds may block up a narrowed part of the intestine, or they may undergo putrefactive changes,

and thereby irritate the tender or ulcerated mucous membrane. This draw-back to the use of milk may be obviated by predigesting or peptonizing it, which is easily accomplished at a warm temperature by means of pancreatic extracts. The bitter flavor of peptonized milk is, however, nauseous to many invalids, and you cannot fully peptonize milk without developing this unpleasant flavor. One of the best means of covering the taste of peptonized milk is to add coffee to it. Another device, which may sometimes be adopted with advantage, is to add the pancreatic extract to cold or iced milk. In the cold, the action of the ferment is comparatively slow, and it takes some hours to produce an appreciable change of flavor. But as soon as milk, thus charged with the ferment, is swallowed and passes into the warm atmosphere of the stomach, it is rapidly digested. I have seen in cases of typhoid fever, when undigested curds of milk were observed to be coming away with the stools, this plan followed by the immediate disappearance of these masses from the motions. But the palates of invalids are sometimes abnormally sensitive, and they detect and resent the mere presence of ordinary pancreatic preparations in articles of food, quite apart from the digestive changes produced by them. Recently, Mr. Benger has placed at my disposal a pancreatic preparation which is absolutely free from taste and smell. This preparation, of which I have here a specimen, consists of the pancreatic enzymes in a highly purified state, under the form of a light, nearly white, powder. It is not hygroscopic, and may be kept unchanged for an indefinite period fully exposed to the air.[1] This beautiful preparation is excessively active, and no palate can detect its presence in milk or other article of food until its effects are revealed in the process of digestion. I am inclined to think that it will prove a valuable addition to our resources when it is considered desirable to subject food to a process of predigestion, and still more when it is desired to add the ferment to the food in the cold state, with a view to promoting its rapid digestion after being swallowed.

Beef-tea and other Meat-Decoctions.—Next to milk, in frequency of use and in high esteem, come beef-tea and other meat decoctions. Long experience has satisfied us in this country of the use-

1. It slowly acquires a slight peculiar odor when kept in a tightly corked bottle, but this passes off when it is exposed to the air.

fulness of these preparations in feeding the sick. Beef-tea and its congeners, however, take rank as restoratives and stimulants, rather than as nutrients. They contain no albuminous matter in solution, and the small quantity of gelatin contained in them can not be of much account. There is a wide-spread misapprehension among the public in regard to the nutritive value of beef-tea. The notion prevails that the nourishing qualities of the meats pass into the decoction, and that the dry, hard remnant of meat-fibre which remains undissolved is exhausted of its nutritive properties; and this latter is often given to the cat or dog, or even, as I have known, thrown away as useless rubbish into the midden. A deplorable amount of waste arises from the prevalence of this erroneous notion in the households of many who can ill afford it. The proteid matter of meat is, you know, quite insoluble in boiling water, or in water heated about 160° Fahr. The ingredients that pass into solution are the sapid extractives and salines of the meat, and nothing more, except some trifling amount of gelatin. The meat-remnant, on the other hand, contains the real nutriment of the meat; and, if this be beaten to a paste with a spoon, or pounded in a mortar, and duly flavored with salt and other condiments, it constitutes not only a highly nourishing and agreeable, but also an exceedingly digestible, form of food.[1]

Cold-Made Meat-Infusions.—The defect in nutritious value of beef-tea led Liebig to suggest the use of cold-made meat-infusions. He recommended that minced beef should be infused in cold water, acidulated with a few drops of hydrochloric acid. An infusion so prepared differs essentially from beef-tea in the fact that it contains, in solution, a large amount of albuminoid matter. The addition of the acid is, according to my observations, a needless complication of the process. Infusions quite as rich in albumen were obtained when simple water was used, as when the water was acidulated with hydrochloric acid. Infusions made from minced meat with half its weight of water, and allowed to stand for two hours, and then pressed through cloth, were found, on analysis, to contain over four per cent. of dry albumen. This amount of proteid is equivalent to that contained in cow's milk. The nutritive

1. These remarks on beef-tea apply equally to Liebig's Extract of Meat, Brand's Essence of Beef, and Valentine's Meat-Juice, all of which are devoid of albuminous constituents.

value of such infusions is, therefore, very high. When heated to the boiling point, they coagulate into a solid jelly. Made from beef or mutton, the product has an unpleasant bloody appearance; but, when made from veal, the coloration is much paler. The best preparation, however, is made from the meat off the breast of a chicken. This meat is nearly white, and it yields an infusion which is almost colorless, and which sets, on heating, into a solid white jelly, of very agreeable appearance. Cold-made meat-infusions cannot be heated above 114° Fahr. without becoming turbid from commencing coagulation of albumen. It is, therefore, impossible to cook them without destroying their liquid character. The objection to these infusions is their raw flavor, which to many is highly disagreeable—though some invalids take them without the slightest objection. The best way of covering the raw taste is to add some ordinary beef tea or a little of Liebig's extract of meat. Some prefer a flavor communicated by a slice of lemon, or by the addition of a little claret.[1]

Beaten-up Eggs.—Another highly nutritive form of liquid food is supplied by raw eggs. The yelk, or white, or both together, are beaten up in various ways and combinations which are well known. Eggs are more easily digested by the stomach in the cooked than in the uncooked state; but, when the stomach is weak and unable to digest solid food, beaten-up eggs pass through it into the duodenum without being meddled with, and are slowly digested in their passage down the intestines. They are incapable of forming lumps or masses, and are, therefore, well adapted for cases of narrowing or ulceration of any part of the digestive tract.

Fortified Gruels.—A very important kind of liquid food is furnished by gruels made with the several kinds of cereal or leguminous seeds. Gruels are not by themselves an agreeable kind of food; they lack flavor; but, mixed with milk or beef-tea, they constitute a valuable addition to our resources in feeding the seriously sick. When prepared from the cereal flours in the usual way, they can only be made of feeble nutritive power, if their liquid character is to be preserved. These flours are very rich in starch, and gruels made from them become thick and pasty if the proportion of flour used in their preparation rise to four or five per cent., and a gruel

1. Cold-made meat-infusions keep badly. They should be preserved in a cold cellar, or, still better, on ice.

of this strength does not contain more than one-half per cent. of proteid matter. But, if the meal be mixed beforehand with one-eight of its weight of ground malt, you can prepare from these flours gruels of much higher nutritive value, and still preserve their liquid character. The diastase of malt acts upon the thickening starch as the heat rises, and converts it into soluble starch and dextrine. These fortified gruels can be made with as much as 20 per cent. of meal, and still maintain the fluid state. Such gruels contain about two per cent. of proteid matter, and about 14 per cent. of carbo-hydrates, and are admirably adapted, combined with milk or beef-tea, to supply a varied kind of liquid food of highly nutritious character. Mixtures of this class seem especially suited for the nourishment of cases of typhoid fever.

A matter of interest, in designing food for the sick-room and nursery, is the consideration of the special properties of the several kinds of cereal and leguminous substances used as food. In point of chemical composition, the several kinds of cereal grains are closely allied; still, there are differences between them, and these differences may be of importance. The proteid of wheat is not quite identical with that of oats or barley. On the other hand, leguminous seeds differ importantly in composition from the cereal grains. Taking the lentil as a type of the leguminous group, it is to be observed that lentil-flour contains twice as much proteid matter as wheat or oat flour, and almost twice as much lime. Moreover, the proteid of the leguminous seeds differs materially from that of wheat or oats. These differences are probably of not a little importance in feeding the sick and the young; and, if we had more knowledge and experience in their use, we could, perhaps, utilize with advantage these several cereal and leguminous products, and combine them in varied ways to meet the indications and necessities of different cases.

You must all have observed how there has grown up in these latter years an enormous trade in prepared "foods" for infants and invalids. The very success of this trade is some evidence of the usefulness of these articles. Their composition is generally made more or less of a secret, but whatever secret there be must be hidden within a very narrow compass. The several possible flours out of which these "foods" are mingled can be easily counted—wheat, barley, oat, maize, pea, lentil, and one or two others. These are the ingredients—with malt flour in some cases—out of which

they are all compounded. Now, I cannot help thinking that it would be an advantage both to ourselves and to our patients, if we knew what we were about in this matter, and if we were in a position to prescribe for infants and invalids the several kinds of farinaceous aliments in proportions known to us, instead of blindly using some mixture of which we know not the exact composition. It is impossible for us to make progress in dietetics on such a path. I can quite believe that these flours have their special excellencies, and that they are severally adapted for different cases and conditions. In the first place, they have distinctive flavors, and thereby may be made to contribute to the important end of providing change and variety for the invalid. Moreover, the faculty of "agreeing" of the different flours, in reference to the individual idiosyncracy, is a point of not a little significance. Lastly, the difference of chemical composition between the cereal and leguminous flours must have an important bearing on the dietetic uses of these two groups of aliments. It is, I repeat, a serious disadvantage that the control of the preparation of food for the sick-room and nursery should pass from the hands of the medical attendant to those of the purveyor. In the matter of drug-giving, all enlightened practitioners are chary of prescribing secret remedies. Such a practice, it is felt, must be fatal to the intelligent use of drugs. So it is with providing food for the sick. What we want is to have at our disposal a supply of the several articles of food in their simple state, and suitable appliances in connection with the sick-room or nursery for cooking and combining them in various ways according to the exigencies of our patients.

If I were asked to enumerate the ingredients and apparatus which are necessary for the cuisine of the sick-room and nursery, I think I could do so very briefly. In addition to the resources of the domestic kitchen and larder, the sick-room kitchen should contain a supply of the following flours: oat, maize, malt, and lentil flours in a finely pulverized condition and freed from bran. It should be provided with a solution of soda bicarbonate of known strength. This would be of use to add to milk when necessary, and to assist in the preparation of peptonized articles of food. Next to these would come a reliable pancreatic extract, and a preparation of pepsin or rennet for the production of whey. The associated apparatus should include a thermometer, wherewith the nurse could, when desirable, heat up the cold-made meat-infusions

to a proper temperature, and regulate the warmth required in the predigestion of food. A double-cased saucepan would form an indispensable item; this makes an admirable hot-water bath for the preparation of beef-tea and fortified gruels. A pair of scales, glass measures and a mincing-machine would complete the list. Finally, there should be, for the service of the nurse, a card or sheet containing plain directions for the preparation of the various kinds of liquid food.

Given these simple appliances, I see no difficulty, in these days of skilled nursing, in the medical attendant being able to prescribe almost any kind of liquid food for his patients in any combination, and having it served up for the invalid in the most suitable possible manner. I have ascertained that there is no difficulty on the part of the miller in producing meals from malt, oats or lentils, freed from bran and coarser particles, and in nearly as fine a state of preparation as wheaten flour. In this state, these meals are susceptible of much more rapid and perfect cooking than when roughly ground. I have little sympathy with much that has been said of the advantages of whole meal and decorticated flour. It has been alleged that the too complete separation of the outer parts of the grain deprives the flour of its mineral matter. If we lived on bread alone, there would be some force in this objection; but as that is not so, and as we find in milk, meat, fish, eggs, soups and fresh vegetables a superabundant provision of mineral matter, and have, moreover, always at our elbows a supply of salt, there can never be any lack of saline materials in our food. The branny matter of the flour is both indigestible and irritating to the primæ viæ; and although it may not injure, or may even be useful, to the strong and healthy, it is quite an unfit element in food designed for the weak and tender membranes of the invalid and infant.—*Brit. Med. Jour.*, Aug. 1, 1885.

The Use of Well Water within the inhabited area of the city should be absolutely prohibited. Nothing is more deceptive than the cool, sparkling water drawn from a well or spring which is the out-flow of a water stratum into which cess-pools or foul deposits discharge.—*Phil. Water Dept. Rep.*, 1883.

FOREIGN CORRESPONDENCE

LETTER FROM VIENNA.—LABOR IN THE HYPNOTIC STATE.

We are indebted to Dr. H. H. Mudd for the opportunity of publishing this very interesting letter from Dr. Blickhahn.

[—ED. COURIER.

Dear Doctor:

On the 31st of October I had an opportunity of witnessing a rather unusual labor, unusual inasmuch as it was the labor of a woman who was hypnotized. The patient, S. Maria, from southeastern Austria, a servant, 26 years of age, single, brunette, of good physique, first menstruated at 14 years, and since then regularly and without pain.

In January last she became pregnant. She was not troubled much with the usual nervous phenomena of the pregnant state. She had not had convulsions as a child, nor anything like hystero-epilepsy since.

First saw her in the receiving ward the first part of September, and observed that she was petulant and of a nervous disposition. Saw her some days later in the ward where she was one of a number of others selected for demonstration in a "touch" course given by Dr. Edward Pritzl, first assistant to Hofrath Carl Braun v. Fernwald, director of the First Obstetrical Klinic in the Vienna General Hospital.

Dr. Sargent, an American, who had been in Paris, and had seen considerable of hypnotism and kindred phenomena at Charcot's clinic, remarked that he thought she would be a good case for hypnotism, and gaining the permission of Dr. Pritzl, he, in the presence of a number of colleagues, among whom were your friend, Dr. Frank Heitzig, and myself, had her sit up, and fixing her attention upon the bright shining end of a metal stethoscope held some eight inches from her face, brought the same closer to and somewhat above her forehead, she following with her eyes until she converged very strongly, when suddenly closing her eyes, she fell back

heavily on her bed, perfectly unconscious. No reflex on touching conjunctiva, no evidence of sense of pain on passing a needle through a thick fold of skin of her forearm. The color of her face remained unchanged; no change in the pulse or respiration could be observed; exploration of the vagina caused no movement on her part—even when roughly done, she made no movement to resent the insult to the parts by closing her thighs or other movements. All the stages of hypnotism could not be produced. An attempt was made to pass her into the somnambulistic state but without success. Once partial success rewarded the attempt, but on an attempt being made to place her on her feet and have her stand, she would have fallen like a log, had she not been supported. The fetal heart sounds remained unchanged. How long she would remain hypnotized was never tested, as, after fifteen minutes to half an hour, she was always made to recover herself, Dr. Pritzl not liking to leave her hypnotized too long, not knowing what effect it would have on her condition. She was brought too by raising the upper eye-lids and forcibly blowing into her eyes, by slapping her throat with a wet towel, or severely shaking her. She would awake with a start, and a dazed look on her countenance. Sleepiness always followed, and she was allowed to sleep for half an hour or an hour, when she would arise from her bed, dress herself and walk about as usual.

Several times after that she was again put through the same maneuvres with the same result. The assistant on a number of occasions hypnotized her himself, he using the mercury end of a fever thermometer to fix her eyes. He exhibited her to several of the professors at different times.

On the morning of the 31st of October, at eight o'clock, she came into the lying-in ward, having spent a restless night. Dr. Pritzl, on making an examination, found the os somewhat larger than a twenty-five cent piece, vertex presenting in the second position, membranes intact. Pains were weak but of rather long duration with short intervals, and contined about the same way all day, she suffering and complaining of pain in the small of her back, and becoming impatient and restless. At 8 P. M. the os was "for three fingers" (to use the German "drei finger"). To hurry the labor Dr. Pritzl punctured the membranes, which increased the force of the pains, but caused her also more suffering, so that she complained greatly and was very restless. She was about in a state to call for the exhibi-

tion of anesthesia. At 10:30 o'clock, the os had a considerably larger diameter but was not fully dilated.

She was hypnotized as usual, the bright object being the end of a thermometer, though it was some time before her attention could be fixed, she evidently being in an excitable state brought about by her suffering and the presence of so many observers. She looked at the luminous point but a few seconds when she lost consciousness, and lay as one asleep for fully three minutes, when a slight twitching of her left hand was observed, and immediately thereupon followed a pain of thirty seconds' duration; then a pause (interval) of one hundred seconds; the next pain was immediately preceded by a convulsive movement of her left arm, pain lasting sixty seconds, the interval, one hundred and twenty seconds. Her left lower extremity began to move with her left arm, and she next moved her head from side to side in an impatient manner, puckering her lips into a pout and wrinkling her forehead. Soon her right side began to act with the left, and after about twenty minutes had thus passed, she lying as at the beginning in the dorsal position, drew her lower extremities up, heels close to the nates, and though in the interval she appeared simply as if sleeping, during pain she would fix her feet firmly and was observed to bear down very decidedly, the same as a conscious patient would on receiving encouragement from her attendant. All this time she was *unconscious* of pain produced by needles or knife, and there was no reflex on touching the conjunctiva, the "bearing down," no doubt, being reflex. Pains increased in strength and length, having an average duration of fifty seconds, the intervals averaging nearly two minutes, until 11:15 P. M, when the child was born. It was a female, weighed 2900 grms. ($7\frac{3}{4}$ lbs.), measured 50 ctm. (19 inches) in length, the cranial circumference measuring 34 ctm. (13.6 inches).

After five minutes the uterus began to act very decidedly again, the pains being like those in the expulsion of the child, though not so long, having an average of thirty seconds, the intervals being relatively longer; bearing down was also noticed and of an unusually marked character; and a little before 12 o'clock the placenta was in the vagina where it remained stationary for some time. After about five minutes, by a very slight traction on the cord, it rolled out into the bed. About 300 grms. ($9\frac{1}{2}$ ounces) of coagulated blood was found within the membrane, and that was the extent of the hemorrhage.

The vagina and uterus were irrigated with disinfectant solutions, her bed changed, and then she was made to recover herself by shaking and calling her, but more effectually by aqua ammoniæ being held under her nose. On being asked how she felt, she answered, "very well, but very sleepy," and begged to be allowed to sleep. She was first quizzed and then allowed to sleep, which she did until 4 A. M., without awaking. Questions put to her before going to sleep brought forth that, as on former occasions, she suddenly became drowsy and fell fast asleep, and knew absolutely nothing until brought to after the labor. She experienced no pain whatever, seemed surprised that her abdomen was so small and that her labor pains had ceased; would not believe she had been delivered. On the child being shown her, she still refused to believe, and then feeling of her abdomen and finding nothing, she laughed in a foolish manner, as though ashamed of herself, and expressed herself as being perfectly satisfied, as it was really so.

Dr. Pritzl and the other gentlemen assembled had come with the idea that the affair was going to be a very long and tedious one, and were prepared to stay up all night. All were very agreeably disappointed at the rapid finish of the labor. The patient has been in good condition ever since.

The doctor remarked about the rapid termination of the labor, especially the excellent character of the pains after patient was hypnotized. Also the very short expulsive period after the os was fully dilated. The placenta came away in the manner described by Ahlfeld. There is no doubt at all that the duration of the labor was considerably shortened by the hypnotism. The placental birth required more time than was deemed necessary. He also remarked about the reflex bearing down, it being remarkable that the pains should be so strong as to cause her to fix her diaphragm and have such forcible contraction of the abdominal muscles *without her returning to consciousness.* He has lately hypnotized several more in the wards but none so successfully as the case related.

Hoping this will be of interest to you, I remain

Yours truly, W. BLICKHAHN.

MEDICAL NEWS VISITING LIST.—Erratum. In our notice of this handsome visiting list in the December COURIER an error was made by the compositor and overlooked in reading the proof. The price of the List is $1.00 or with the thumb letter index $1.25.

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ORIGINAL ARTICLES.

RECENT PROGRESS IN THE TREATMENT OF HAY-FEVER.

BY J. C. MULHALL, M. D., *Physician to Throat and Chest Department of St. Louis Medical College Dispensary.*

[Read before the St. Louis Medico-Chirurgical Society, Dec. 15, 1885].

THE word hay-fever exists only through the sanctity of custom. Many other irritants than hay emanations produce the disease, and fever is often absent, and very seldom a marked feature. My object in this paper is to raise no issue beyond that of treatment. There can hardly be said to have been any advance in that direction, for, until lately, we have been quite powerless. One cannot speak of progress when the march has not yet begun. A few explanatory words will make the question of treatment clearer. It was always, of course, known that during the attack the nasal mucous membrane was exquisitely sensitive, and it was usually considered that the reflex phenomena, both secretory and motor were occasioned by some irritant from without attacking the nostrils of certain individuals in whom there existed within the domain of the fifth nerve or sympathetic a hyperesthesia, peripheral, central or in continuity. It has lately been shown that surface hyperesthesia exists in the nostrils of these individuals at all times of the year. Dr. Sajous, of Philadelphia, has pointed out that this hyperes-

thesia is specially developed within and is sometimes limited to circumscribed areas within the nose, corresponding to the point of entrance of the sensory trunk on the membrane. He claims, for example, that it is only when the surface over the posterior ends of the inferior turbinate, representing the nasal branches of Meckel's ganglion, is involved that the asthmatic element occurs.

In pathological reflexes it is natural to first investigate peripheral sources; and thus in hay-fever to look for some surface disease producing hyperesthesia. In 1882 (I speak from memory) Dr. Daly, a laryngologist of Pittsburg, announced his belief that nasal catarrh with hypertrophy was the developing agent of this surface hyperesthesia, and that in the cure of this condition would be found the prophylaxis of hay-fever. This was an accidental discovery. In the winter of 1880 an elderly gentleman applied for relief from nasal catarrh. Finding turbinate tissue hypertrohy, Dr. Daly used the galvano-caustic, and in a number of sittings cured this condition. This patient had been for many years an annual sufferer from hay-fever, but in the summer succeeding the winter in which he had undergone the treatment, he was surprised to find himself entirely free from hay-fever. Daly, upon being informed, concluded that the hay-fever had depended upon intra-nasal hyperesthesia, itself caused by the nasal hypertrophy. A like result followed similar treatment applied to a similar case. He published these results in the *Archives of Laryngology* for 1882. All credit is due him, as being the first to demonstrate the possibility of preventing hay-fever, by treatment directed to the nasal membrane in the interim. That his theory is incorrect is highly probable. Though most hay-fever sufferers will be found to have hypertrophic catarrh, quite a number will be found during the interim to have a perfectly healthy mucous membrane. Again, the success of his treatment is no argument, since the same treatment, the galvano-caustic, or other destructive agent, has likewise cured those in whom neither catarrh nor hypertrophy existed. That nasal catarrh may aggravate this peripheral hyperesthesia is highly probable, but that it may beget this hyperesthesia may well be doubted. It may also be assumed that, just as in uncomplicated bronchial

asthma when the paroxysms are frequent, a bronchial catarrh is finally developed as a consequence, so may the prolonged acute rhinitis of hay-fever with its attendant distension of the erectile tissue invite the gradual establishment of a chronic rhinitis. The late discovery that in hay-fever sufferers there exists as a constant condition intra-nasal hyperesthesia is an important one, for a reasonable formula follows that the prophylaxis of hay-fever consists in such treatment as will prevent abnormal reflex excitability. My own belief is that we are entirely ignorant of the primitive etiology, and that we have lately succeeded in curing certain cases of hay-fever, simply by destroying the peripheral possibility of the reflex act. No matter what the central nerve condition, no matter what the irritant in the atmosphere, if the afferent nerves be destroyed, a reflex cycle cannot occur. A man whose nose cannot feel irritation, will not sneeze.

My experience in this procedure will give you some idea of its value. Two cases applied last February, that is, long before the date of their annual hay-fever recurrence, which in both took place from August 15 to 18, and four more applied whilst suffering from the disease.

Mr. L. E, Green, merchant, one of the vice-presidents of the Hay-Fever Association, had suffered many years from the most violent form. So violent were the sneezing, lachrymation and asthma, that nothing could induce him to remain in St. Louis again, after having once essayed to remain here during an attack. On this occasion he thinks that only the prompt action of his wife in having him conveyed at once to the White Mountains, saved his life. He was rapidly becoming fatally exhausted, he thought. He determined, however, to accept treatment, and to remain in St. Louis during the hay-fever season, in order to determine the value of the treatment. He applied to me last May. I found slight general congestion and thickening in both nostrils, with a moderate catarrh, slight obtuseness of olfaction. With a probe I discovered super-sensitive areas over the septum, floor and inferior turbinate and anterior portion of middle meatus. I made ten applications of the galvano-caustic to these regions with great improvement to the pathological condition.

His sense of smell became as acute as ever. He passed the entire hay-fever season in St. Louis. There was not a complete cure. He expressed himself, however, as being seventy-five per cent better. He suffered the usual manifestations, but only to a mild degree. My impression now is, that I was not free enough in the use of the galvano-caustic. There also existed unusual anatomical difficulties to manipulation. His nostrils were narrow and the septum irregular. He proposes renewal of treatment this spring; and I fully believe that with renewed treatment he will entirely escape hay-fever next summer.

At the same time in May Mr. Leon Guedry, builder, an almost equally bad sufferer, came under treatment. His hay-fever date is also about August 15. I found immense polypoid thickening of the right middle turbinate, hypertrophy of both inferior turbinates, somewhat profuse muco-purulent discharge, exquisitely sensitive areas. Irritation of the posterior ends of inferior turbinates produced a sense of thoracic dyspnea and constriction; of other parts, sneezing and lachrymation. With the cold snare and galvano-caustic, I removed all obstruction and undue hyperesthesia. One week before his expected attack, I proved in the presence of Dr. Eversole, that a probe no longer excited reflex symptoms of any kind. He himself stated that his catarrh was cured, that whereas formerly he was awaked twice each night by his obstructed nasal passages and soiled two handkerchiefs in cleansing them, now nothing of the kind occurred day or night. Yet, notwithstanding that the hyperesthesia and hypertrophy were removed, he suffered with scarcely diminished intensity, at the usual date, from hay-fever, nor did it cease except with the appearance of frost. The treatment was a total failure.

Mrs. K., sent by Dr. Brokaw, during the progress of the disease. During an acute rhinitis one is not able to judge accurately of the previous chronic condition. This patient stated herself to be a sufferer from nasal catarrh with muco-purulent secretion, especially from the left nostril, without obstruction. I applied the galvano-caustic to the sensitive areas at various times during the season. She stated herself to have been greatly benefited, that whereas in previous seasons she was frequent-

ly compelled to keep her room; no such necessity now existed, that she considered her case reduced from a severe to a mild attack.

Miss L., third season of hay-fever, came in last August during progress of disease. No previous history of nasal disease. Two galvano-caustic applications in each nostril. At the end of three weeks she reported herself cured, with the exception of an occasional sneeze after awaking in the morning.

Mr. Arthur Lee, lawyer, came last August during progress of the disease. Has usually spent the season at Green Bay, Wisconsin. Having heard of the caustic treatment he determined to remain in St. Louis this season to test it. At the first sitting I cauterized four separate areas, two in each nostril. On the following day he took a long drive through heavy dust without any nasal disturbance whatever. He at once experienced great relief. This gentleman was by no means cured, but at each sitting expressed his great relief. His hay-fever ceased September 2. Most cases in St. Louis cease about October 1. Some seasons are more severe than others. This last season has been unusually prolonged, our first frost this year being quite late. I know of two cases who were yet suffering at the middle of October.

In the case of Mr. Lee, it is difficult to place a correct estimate as to the value of the treatment. Possibly his trouble would have been milder than in previous years, had he remained in the city without treatment. This is in the history of certain cases. In his judgment the treatment was of value, as indicated by his intention to place himself under the same treatment several months before the annual date of the recurrence of the disease.

Father D., clergyman, suffers at the first appearance of vegetation. He has, therefore, according to common nomenclature, rose-cold as well as hay-fever. He came during the progress of the disease. His condition was much improved by galvano-caustic treatment. There existed so much deviation of the septum, cartilaginous and bony, that a thorough treatment was not practicable. This condition I hope to remedy during the winter.

These six cases comprise those whom I have treated, and I think your general verdict must be a favorable one. I feel that I shall have a much better report to make next year. I feel that I partly deserve the stricture of Dr. Sajous who says that failure follows incomplete or timid cauterization, and I shall have more cases to operate on at the proper season, mainly, some months before the hay-fever season.

As to the method of operation, it is not within the scope of this paper to detail it. Others have used glacial acetic or chromic acid with equally good results. My own experience is, that nothing can equal the galvano-cautery. Some operators have mentioned disastrous results from its use. I have done at least 400 operations in the nose with it without a single evil consequence. I shall only mention what I consider to be the secret of this. It is to never allow the electrode to cool whilst in contact with the tissue, and to use a heat, either white or midway between cherry red and white. If the electrode be allowed to cool in contact with the spot operated on, it chars the tissue and adheres to it, requiring force to separate it, a very painful process to the patient, and producing a traumatism that is quite apt to be followed by disaster Done in the method I recommend the operation excites astonishingly little pain and but a slight areola of inflammation about the spot cauterized.

Something has been gained in the treatment of hay-fever by the introduction of cocaine. No one has claimed that it is in any degree curative. It was quite easy to predict when this drug was last winter introduced that it would prove of service in this disease, by those who bore in mind the fact of the intra-nasal hyperesthesia. Numerous reports have justified the belief. On the other hand some have reported that it was quite useless even as a palliative. It is easy to understand both statements. It is quite certain that if the cocaine can be applied to the nasal mucous membrane, it will anesthetize its sensory supply, and, this being the case, reflex action is no longer possible. But, in many cases it is at once expelled by sneezing, in others the profuse nasal discharge so dilutes the drug that it becomes practically inert. Again, in many cases intra-nasal application of cocaine to the normal membrane ex-

cites discharge of mucus. In any event, even if we could first thoroughly dry the entire Schneiderian membrane during the hay-fever paroxysms, and without exciting reflex symptoms, thoroughly paint the membrane with any given solution of cocaine, the relief would last but a few hours. That it will for two or three hours, when it can be well applied, banish every symtom of hay-fever, I have had on several occasions proved. It is doubtful yet, however, whether the constant local use of this drug in the nose does not eventually do harm. I have, with others, observed that, although its application banishes congestion and empties the erectile spaces for a time, its continued use eventually increases the original vascular distension, as if the vessel constrictors wrought into abnormal tension by the drug became, when the influence of the drug passed away, the more paretic, like the reaction of exhaustion which follows any morbidly stimulated or over-used muscle or nerve. According to Dr. Bosworth, of New York City, a 33 per cent solution of carbolic acid in glycerine is of far more value as a palliative than cocaine.

Palliatives are eagerly courted by the hay-fever sufferers, and the discovery of such must therefore be regarded in the light of progress.

I cannot, in the light of general knowledge and my own small experience, regard as otherwise than irrational the superficial alteration of the nasal mucous membrane by destructive agents as a cure for hay-fever, but, at the same time, must express my sincere conviction that such treatment will cure the majority of cases.

Time and experience have not yet decided whether such cure be radical. It may be that the sentient nerve filaments thus destroyed, will in two or three years be regenerated, or new sensitive areas be developed and again render possible the reflex cycle of irritation and explosion. Even, in such event, the renewal of the galvano-caustic method requires but a few visits from the patient, is easy and quick of execution and devoid of danger. The suffering of the hay-fever victim is great. Climatic change, to many impossible, often means business or other sacrifices. To such, late progress in the treatment of hay-fever is not without great encouragement.

ON EXTENSION IN FRACTURES.

By J. E. Tefft, M. D., Springfield, Mo.

[Read before the S. W. Missouri Medical Society.]

THERE is no part of the general treatment of fractures of the long bones, which is beset with greater difficulties, than the prevention of shortening of the limb. When there is a complete fracture of a long bone, in an adult, in an oblique direction, which is the rule, and the periosteum is completely torn across, overriding of the fragments and shortening occurs at the time of the injury. It occurs more or less in all fractures of the long bones of whatever form, provided the broken ends are so separated that the end of one fragment does not rest upon, and is not supported by, that of the other. This primary shortening is caused, to some extent, by the normal tonicity of the muscles of the limb, but mostly by spasmodic action of the same muscles, caused by their jagging and wounding by the broken fragments, from the direct action of the cause of the fracture, from the voluntary and involuntary movements of the patient after the injury, and from the inflammation of the muscles, which is thereby set up. The leading indications in the treatment of a fracture are: to secure coaptation of the fragments in their original position and then to maintain immobility. To reach these indications is the object of extension, which is the subject of this paper.

By extension is meant such a force exerted upon the distal fragment in the direction of the long axis of the limb, as shall overcome the contractile force of the muscles, and thus bring the fragments to their original position, and so keep them. The "setting" of a fracture, speaking generally, consists, or ought to consist, in making such traction upon the distal fragment, as shall restore its original position and cause an equal tension of all the muscles involved. This having been done, adjustment of the broken ends is secured and maintained by the lateral pressure of the muscles themselves. The assistance of local lateral pressure may be required in some cases to secure and maintain this adjustment, but it is certainly true that the

principal factor is as above stated. The office of splints, generally speaking, is not to effect coaptation. They tend to maintain coaptation when once effected, by assisting the lateral pressure of the muscles, yet their chief office is to maintain immobility of the limb. In the exceptions when localized pressure by splints is much relied on, it is because for exceptional reasons, extension cannot be efficiently maintained, or there is an especial tendency to some certain form of displacement.

The office of counter-extension is to maintain a fixed position of the proximal fragment, or of the body of the patient, so that extension may be applied without dragging the proximal fragment and the whole patient after it. As a rule counter-extension is easily and efficiently accomplished. The difficulties arise in connection with the application of the extending forces.

There are certain obvious facts which should not be lost sight of. 1. Except in the rare cases of impaction there is no resistance to extension on the part of the bony skeleton. The resistance is the normal and morbid contractile force of the muscles which move that part of the limb represented by the broken bone. There is no known method of attaching an extending force to a muscle. The traction must be upon the part to which the muscle is attached. Hence, as a general proposition, an extending force, to be effective, must be applied as far on the distal side of the limb, as the nearest joint. Thus, an extending force, intended to stretch the muscles of the thigh, in the case of a fracture of the femur, must be applied at the knee joint or below it, and in fracture of the leg the extending force must take effect at the ankle. 3. An extending force attached solely to the skin will not effectively stretch the underlying muscle, though, if supported by a snug bandage, it carries the whole limb with it, the upper as well as the lower part. Thus in the case of a fracture of the middle of the leg, if adhesive plaster is applied, commencing at the point of fracture and ending two inches above the malleoli, as recommended by Hamilton, Gross and others, the traction is expended upon the fibro-areolar tissue, and has not the slightest influence toward bringing down the distal fragment, or toward stretching the leg muscles. And if, as by Neill's method, recommended by Hamilton, Gross and others,

the counter-extension is applied by adhesive plaster, commencing at or near the site of the fracture and terminating below the tuberosities of the tibia; the two forces acting together have no further effect, for the purposes for which they are applied, than to stretch the skin and underlying fascia, and have no tendency to separate the two fragments.

In fracture of the femur, extending bands of plaster are to be applied to the leg from the ankle to the knee, and to be supported by a firm bandage. The effective traction of the limb is then mainly got at the ankle and at the upper third above the calf, two points where the limb increases in size from above downward, and the traction is not upon the skin and fibro-areolar fascia, but upon the expanded lower extremities of the tibia and fibula, and upon the muscles of the calf, by means of the bandage. We are, indeed, advised, if the fracture is not close to the knee, to carry the extending bandage above the knee, so as to relieve the ligaments of that joint of a part of the strain. This, however, for the reasons given above, is entirely ineffectual except the extending bands and bandages are so adjusted that the traction takes effect upon the expanded lower extremity of the femur. This advice is given us in standard works, though it is a fact that until the shortening is overcome, and actual elongation begins, not the slightest tension of the ligaments of the knee is produced by pulling at the leg. The same sensation of comfort is produced by the bandage alone, and especially by a pillow behind the knee to produce slight flexion of the joint, and to these measures the proceeding advised owes whatever of comfort follows its use.

In a fracture of the middle or of the upper half of the leg, extending bands of plaster may be applied to the lower third with considerable effect. Traction here is upon the expanded lower extremity of the leg, mainly upon the malleoli. To extend the bands above the lower third is quite useless, as thereby no effect is produced toward stretching the strong leg muscles. The traction must be at the ankle where the leg muscles are inserted. The principle of the discarded gaiter is exactly the principle of the plaster, only the latter can be better adjusted and is easier to the patient. No way, however, has been devised by which

strong and continuous extension can be applied to the lower fragment of a fractured leg, especially to the lower third, without pain and other mischief following the pressure of the apparatus, and therein consists one of the greatest difficulties in the management of some of the cases.

In former times fractures of the leg were treated with no direct longitudinal extension, coaptation, when once secured, being maintained by lateral pressure by means of fracture boxes, splints and bandages. But within the last thirty years, since Gurdon Buck popularized the use of adhesive plaster, this, owing doubtless to the facility of its application, has mostly taken their place. Yet it is doubtful if any great good has resulted from the change, or if shortening in leg fractures is any less than under the old plan. It still remains true that the length of a broken leg can hardly be maintained by any direct extension which can be borne by the patient, and it also remains true that lateral pressure at and near the site of the fracture is an indispensable means of maintaining coaptation and preventing shortening. Indeed the success of the plaster case in fractures of the leg depends upon the efficiency of lateral pressure, for it is not too much to say that direct longitudinal extension, to any appreciable or effective extent, is not exerted by a plaster case.

It is evident that surgeons are apt to deceive themselves as to the extent of muscular tension under normal conditions, as well as to the exciting cause of the tonic contraction of muscles in case of injury to themselves or to contiguous tissues. The language ordinarily made use of would indicate that every muscle in the body is normally as tense as a bowstring, and that in case of the approximation of the points of origin and insertion of a muscle, it instantly contracts, and the same condition of tension is thereby constantly maintained. There is, doubtless, a certain tonicity of muscular fibre by which an exceedingly slight tension is maintained in normal condition. Yet the organic contractility of muscular fibre is for the greater part a force ready to be called into service, rather than in constant requisition, a reserve force rather than a force in constant use, powerful *in posse*, very slight *in esse*.

Any one who will take the pains to examine the muscles of a well man when completely at rest, can by handling satisfy himself that the tension is very slight. When the tension is considerable it will be found to be either from voluntary or involuntary nervous stimulus, or to be a matter of reflex irritation. If the belly of a flaccid muscle is cut across, the fibres very slowly contract, doubtless partly and slightly from organic contractility, and partly but mostly from nervous influence reflected from the wounding. In case of the division of the *portio dura* upon one side, it does not result that the face is instantly and strongly drawn to the other side, but the distortion is slowly developed, or some time may elapse with but slight distortion of the face, and then it may suddenly become extreme, facts which tend to show that the muscular contractions are largely the result of central excitation. In fractures of long bones there is nearly always jagging and laceration of the contiguous muscles.

All physiological experimenters have found that mechanical irritation of the belly of a muscle both stimulates organic contractility and excites reflex contractions, and it is not to be doubted that the greater part of the shortening in fractures arises from such mechanical irritation. Hence the treatment of shortening must have in view the elimination of organic contractility and the inhibition of reflex nerve stimulation. The former, the lessening of organic contractility, is accomplished by gentle, though firm, equally diffused, continuous lateral pressure. The latter is more difficult, yet we may generally accomplish it or largely promote it by removing the sources of irritation, by adjustment of the displaced parts, by remedies calculated to allay inflammation, and by internal remedies to quiet the excitation of the central nervous system. Hence from all this it should follow that a broken limb placed in the most favorable position for muscular relaxation, with the broken parts so adjusted that there is no further mechanical irritation, with gentle, diffused, uniform lateral pressure upon the limb, with reflex irritation allayed by anodynes and other remedies, should require but a very limited amount of direct longitudinal extension. The plan of "tiring the muscles out" by powerful, long continued traction should not be thought of.

They should be extended at once under anesthesia with or without the aid of the remedies alluded to. It is not intended to disparage extension. It is a resource of the highest value, often quite indispensable. The idea intended is, that continuous extension is not the proper means of correcting shortening, and not the only means of preserving the length of a limb when the primary shortening is overcome, but that measures must be taken to remove the cause of the spasmodic muscular contraction, and that when that is done the necessary direct extension is generally easily applied and easily borne.

If it is a fact, as indicated in the preceding pages, that direct extension (notably in fractures of the leg) is often used in such a way that it cannot possibly accomplish the object sought; the question arises, why have surgeons continued to use it in that manner.

It is scarcely fair to say that a dressing has been employed by a generation of medical men in such a way as to be quite useless.

The fact is that is not useless. It accomplishes great good. Not by materially lengthening or tending to lengthen the muscles, but in promoting steadiness and fixity of the limb, by securing immobility of thigh, leg and foot altogether. Even when extension is entirely efficient for the purpose intended, the apparatus of whatever material, or however it may be arranged, besides accomplishing extension, also performs another equally important service. It maintains the limb in a state of complete rest. In many instances extending bands of plaster are so applied that they effect longitudinal traction and aid in immobilization, but they also furnish useful and adequate lateral support. It is probable that in many such cases, the good obtained from the use of the apparatus is all credited to the supposed lengthening of the muscles, when in fact the greater part of the benefit is from the fixity of the limb and the lateral pressure exerted by the apparatus which was devised and applied for the sole purpose of exerting a traction force. The fracture once having been properly adjusted, immobility and lateral support renders traction unnecessary.

In compound fractures of the lower half of the leg, or in

simple fractures attended with inflammation and swelling, probably no better device has ever been used than a well constructed fracture box. Some of the forms of suspension may be less irksome to the patient, yet no better results are obtained by the modern devices than were obtained forty years ago with the bran box, or, to speak more accurately than are now obtained with the bran box. Indeed in compound fractures of the lower third or of the ankle it is perhaps the very best. And yet there is no pretense of any extension, and shortening is no more than with other methods. If the upper part of the box is so arranged as to avoid rotation of the upper fragment and so as to be capable of suspension, it is a plan of treatment which in such cases has never been improved upon. In simple fractures of the leg, and in compound fractures after the swelling has subsided, the most popular dressing at the present time is plaster of Paris, either the plaster case, the gutter, or the book back splint. These are excellent dressings. There is immobility and side pressure, but no extension; but, with those, none is needed. At all events there is none, and the results are good. Some of our best hospital surgeons treat many fractures of the shaft of the femur with the double inclined plane, and, for many, it is doubtless an excellent plan—yet there is no extension. The thigh is flexed upon the pelvis for the benefit of the anterior muscles, and the leg upon the thigh for the benefit of the posterior muscles. This position, which is the best possible, and lateral support with coaptation splints and bandages and rest constituting the whole treatment, and the results are good

The fact that shortening of the muscles in fractures is very largely the result of reflex irritation from the wounding of the muscles themselves and contiguous tissues, constitutes the most imperative reason for placing the fragments of a broken bone in apposition at the earliest possible moment, that the traumatic irritation may berendered as small as possible. It is also urgently demanded that inflammatory effusion may not occur in the substance of the muscles involved, while in a shortened condition, which circumstances or mechanical reasons would render their extension to their normal length a matter of great difficulty.

OPERATION FOR STAPHYLOMA.

BY J. H. THOMPSON, M. D., KANSAS CITY, MO.

IN introducing to the profession an improvement in the operation for the removal of large staphylomata of the cornea, I do not claim any great originality, nor am I prepared to champion any operative procedure which involves the ciliary region of the eye. I am well aware that there are many good ophthalmologists who consider any interference such as I propose professional heresy. It is not to be denied, however, that there are many different opinions concerning the causes of sympathetic ophthalmia and that there are some who are not so fearful of simple incised wounds of the eyeball, posterior to the corneo-scleral junction, even if they do involve the ciliary body. Again, it is not to be denied, as Dr. Agnew lately remarked, that enucleation of the eye is a dreadful and unsightly mutilation. True, this may in part be remedied by the wearing of an artificial eye, but it is rare indeed that this improvement gives comfort to the wearer or moderates the distress of his friends. The great difficulty in fitting an artificial eye is the want of a stump (after enucleation), consequently we are often compelled to use an eye much too large for the lids, which, of course, is immovable and often painful.

It is to obviate the necessity for enucleation that I propose the following operation for the removal of large, irritable and ugly staphylomata of the cornea.

After the face has been carefully cleansed, the conjunctival sac washed with a solution of the bichloride of mercury, and the patient anesthetized, the lids are to be held wide apart with a strong spring speculum. If the instrument is not large and clumsy there is little danger of its pressing upon the eye. The conjunctiva is to be dissected back from the cornea at least five-eighths of an inch all around. When the dissection is completed the sutures are to be inserted as in Fig. 1, drawing half of them to the side of the nose and the remainder to the temple. Thus they are out of the way of the operator and ready for immediate use. The next step is a complete and free division of

the tendons of the superior and inferior recti muscles. As the speculum is held off the eye ball by an assistant, the staphyloma and entire cornea is to be removed by a V-shaped incision. For this purpose I have used Beer's knife, making the first cut downwards. Thus, if the left eye is operated on and the right hand of the operator used, the cut should come below the cornea; the staphyloma is then to be removed with scissors and if the first incision is made as suggested, this can be done without much loss of the vitreous. After the diseased part is removed the edges of the wound are to be brought together with catgut sutures,

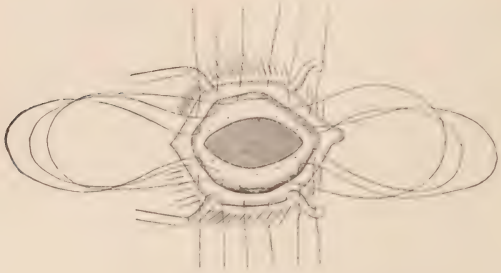


Fig. 1.

Fig. 2.

which are passed through the sclera as is shown in Fig. 2. If the tissues are thin it may be difficult to do this, but it should be done if possible. The sutures are to be tied and cut short. The eye ball must then be carefully cleansed, with the bichloride solution if thought advisable, and covered by the conjunctival flaps. The after-treatment is the same as in ordinary surgical injuries of the eye. The object of dividing the recti muscles is to remove their tension from the flaps, which permits complete coaptation and aids healing by first intention.

Thus in a case lately operated upon, healing was immediate and the bandage removed on the eighth day—a result hardly to be expected in the ordinary operation. It is unnecessary to remove any sutures, the gut stitches are absorbed and the silk ones thrown off.

As I have stated above, I do not propose to defend any operative procedure in the ciliary region of the eye in a debate on sympathetic ophthalmia, but I do think that if we decide to re-

move a staphyloma the operation I suggest is as safe, if not more so, as any other for that purpose and will give the best results.

If one is afraid of sympathetic ophthalmia, or desires to modify the operation of evisceration as a substitute for enucleation, it would not be difficult to tear or detach from the inner surface of the sclera the ciliary body and anterior segment of the choroid. Of course, following such an operation complete atrophy is to be expected, but the stump will well support an artificial eye and will not be a source of dangerous irritation.

CLINICAL NOTE ON CHEESY OR TUBERCULAR INFLAMMATION OF THE GENITO-URINARY ORGANS.

By Jno. P. Bryson, M. D., St. Louis.

[Read before the St. Louis Medico-Chirurgical Society, Dec. 1, 1885.]

THE following paper is simply a record of the impressions made upon the mind of the writer by the observation and treatment of a score of cases of cheesy or tubercular disease of the genital and urinary organs, and it does not purport to contain anything new.

The surgeon, as well as the physician, has to do with tubercular disease and cheesy inflammation of organs and tissues; nevertheless, there is good ground for saying that at the mention of this most important disorder the mind of most of our profession is turned towards the lungs. We are apt to think that tubercular disease implies the existence actual or prospective of pulmonary phthisis. Indeed, it would not be going too far to say that the whole clinical theory in regard to this disease is shaped by the experience had with the pulmonary affection, and especially is this true in regard to the estimation of its incurability.

To say that a person has tubercular, or cheesy inflammation of the testis, prostate, bladder or kidney, does not necessarily im-

ply that he has, or even that he will have, pulmonary phthisis; nor is it by any means certain that such an one will perish of general infection or miliary tuberculosis. Certain it is that the surgeon sees patients affected with cheesy or tubercular disease of organs and tissues, and sees them die in consequence of it, the lungs remaining unaffected. My own observations are in accord with those of the profession who hold that only exceptionally is tubercular disease of the uro-genital organs the result of general infection.

It is not my desire to discuss the pathology of tubercular disease. On the contrary, I wish to avoid it. But, I cannot deny myself the privilege of expressing here the hope that our pathologists, fully equipped as they now are, will enter more extensively than they have heretofore done, upon this field of localized tubercular disease affecting organs and tissues other than the lungs—structures which come under the knife of the surgeon and under direct ocular observation. So far as I know, this form of the disease has not yet been reproduced in the laboratories of the experimental pathologists, but our surgical clinics furnish abundant opportunities to study it, and it appears that there is here an exceptionally favorable opportunity to settle some of the points now under discussion.

Well aware of the different views held by pathologists, I have yet ventured to use the terms cheesy inflammation and tuberculosis in a synonomous sense. My object here is to record a clinical experience, and it is in the interest of simplicity and clearness alone that I make this explanation. To my mind they are the same thing and describe an inflammatory condition which is different from any form of inflammation affecting the genito-urinary organs. I believe this view is widely held by those whose practical work brings them into surgical relations with the disease so designated. If, as Ebstein insists, tubercle is to mean only miliary tuberculosis, then I know nothing of tubercular disease of the uro-genital organs. This is said with no intention of denying the existence of a general miliary tuberculosis of the kidney. Neither is it to be denied that there occur chronic indolent inflammations of these parts which result in a deposit of cheesy matter, yet bearing no resemblance to tubercular disease in its clinical features.

The clinical picture of the disease, as it affects these organs, has been marred by that arbitrary division of labor which assigns all diseases of the kidneys to the physician, and those of the genital organs and urinary passages to the surgeon. Nature has intimately united these sets of organs and their ducts and reservoirs, and cheesy inflammation being a disease that has a tendency to travel by continuity, the one set of observers find the pathological state moving into the domain of the other. It would be difficult, indeed, to add anything to W. O. Roberts', or Ebstein's descriptions of cheesy inflammation of the kidneys, or renal phthisis, or to Curling's classical picture of tubercular disease of the testes; or to Sir H. Thompson's account of this disease in the prostate and vesical neck; it is a far less difficult task to write of the disease as it affects the entire apparatus, genital and urinary.

There would be little fault to find with this division of labor, if it did not have a tendency to obscure diagnosis; and early diagnosis, always important, is doubly so in these cases. It has a high value if it does no more than stay the hand of certain forms of treatment. The steel sound and deep urethral injections and irrigations are not going to benefit cases of tubercular prostatic disease. Neither will strapping and mercury and iodide of potassium help tubercular orchitis and epididymitis, any more than highly irritating diuretics will cure renal phthisis. Clearly, these methods of treatment do harm, and in all the cases of error that have come under my notice, I believe the mistake was traceable to incorrect diagnosis. In view of these facts it is hardly possible to avoid the conclusion that chances of error in diagnosis will be materially lessened when the surgeon takes more heed of the close relationship the different parts of these two sets of organs bear to each other anatomically and physiologically.

It is time that the glandular structures (kidneys and testes) have each a separate vascular supply; but there is a point where the ducts of these glands unite to form a single tract and to become a common canal for the passage of both semen and urine. In a word, it is in the prostatic urethra that the continuity of structure of the ducts becomes perfect, and from this point of junc-

tion to the urethral meatus, we have not only a common function but a common blood supply and drainage. While the *raison d'etre* of the male urethra is sexual; still it is also a urinary duct as well as a seminal duct. I would not dwell on so obvious an anatomical fact, but for its high diagnostic value. Now, cheesy inflammation, commencing either in the testis or in the renal substance, has, as is well known, a tendency to travel along the ducts that convey the secretions of these glands. This successive invasion of new tissue does not appear to be entirely due to continuity of structure. Clinical observation seems to show that there are points especially liable to attack, and to this extent appears to uphold the general conviction that the disease is an infectious one. This view may be held independent of the theory that the bearer of the virus is the baccillus of Koch. Certain it is, that the clinical observer sees frequently, most frequently, that cheesy inflammation invading primarily the kidney or testis, and secondarily the prostate gland without having traveled along the whole course of the intervening mucous membrane of their ducts.

There are three parts of the uro-genital apparatus whose liability to be attacked by cheesy or tubercular inflammation is well recognized, viz., the kidney, the testes and the prostate. Looking at the tendency of the disease to invade successively the vulnerable points along the course of the urinary and seminal ducts, and coupling this with the anatomical facts mentioned above, it must appear that the prostatic region is most liable to show signs, sooner or later, of the existence of the disease, no matter where it begins; and this liability on the part of the prostate affords us the best opportunity we have of diagnosis, for it is in reach of the finger, and it is here that the *tactus eruditus* will be of the greatest value in clearing up questions that would otherwise be enveloped in the greatest obscurity. Gosselin long ago called attention to the value of frequent examination of the prostate, by means of a finger in the rectum, in cases of suspected tubercular diseases of these organs.

I have the notes, sufficiently definite for the present purposes, of twenty cases of tubercular or cheesy inflammation of the urinary and genital organs. More than this have come under

my observation, but I have included in this number only those cases where the diagnosis was not fairly open to question.

In two of these cases *post-mortem* examination confirmed the diagnosis; in one the diagnosis was not fully made until I had done an exploratory urethrotomy and introduced the finger into the bladder; and in a third, which I saw with Dr. N. B. Carson, a perineal urethrotomy afforded the exceptional opportunity of not only introducing the finger into a tubercular cavity in the prostate, but of looking into it as well—an autopsy *in vivo*.

It is not alone the number of instances of this disease observed that leads to the opinion that tubercular inflammation of these organs is of greater frequency than is supposed. Of more significance, to my mind, is the fact that a suspicion of the nature of the complaint was aroused in so few cases. All are aware of the uncertainties and difficulties of diagnosis in the early stages, and it is to this that I attribute the fact that so few of the cases I have seen were made aware of the gravity of their condition. In some cases the nature of the treatment adopted indicated a distinct error in diagnosis.

In my notes, the part first invaded in given as the prostate in eight cases, the testis in seven, and the kidney in five. In only three cases does this assignment amount to more than conjecture; and these are all instances where the disease first appeared in the testis. The reason for this is obvious. The only grounds for making the assignment as above, except in the three cases, was based on the symptomatology, and, what makes the division more uncertain, the majority of the cases were seen late in the progress of the complaint.

What is much more important is the fact that in no case did the prostate fail to show evidence of the existence of the disease, and this was true whether the testis or kidney were the parts supposed to be first invaded.

There is no need here to describe the condition of the tubercular prostate as evidenced to the touch by rectal examination. To one symptom only will I call attention for the reason of its constancy; and this is the localized cheesy phlebitis of the vesico-prostatic plexus. In none of the cases of tubercular disease of the genito-urinary organs that have come under my observa-

tion, have I missed this condition; and, on the other hand, I have not observed it in other forms of inflammatory disease. I believe it to be quite constant, and to be among the first of the changes wrought by the disease in the vesico-prostatic region. Following is a brief notice of a case which will serve as a means of explanation:

Six years ago, J. W. H., a pale, dark skinned lad of 16, came to me on account of a total absence of all signs of virility. He declared himself to be perfectly healthy, and only seemed to be concerned that he "was not like other boys of his age." Close physical examination revealed hard, indolent, cheesy inflammation of the epididymis on both sides, which condition he declared had existed since he could remember, and was stationary; both testes were rudimentary in size and feel, the prostate so infantile that its outlines could not be defined by the touch; the cords normal to the finger, and a complete absence of all signs of virility. Micturition was normal in frequency, and repeated examination of the urine failed to evince any departure from the healthy standard; not a pus-corpuscle was to be found. Jaborandi, just then coming into use as an aphrodisiac agent, was given, and in a few weeks the sexual evolution came about. In less than a year, a remarkable change was wrought. The testes had visibly enlarged; there were erections and a few nocturnal emissions; the high-pitched treble voice had sunk to a strident barytone; hair was growing on pubes and chin.

Along with this change, the slumbering disease awoke and became active. The epididymis, first on one side then on the other, became inflamed, suppurated and discharged a flocculent fluid through fistulous openings that have never healed, while portions of the encysted cheesy material underwent calcareous changes. I have watched the case through five and a half years, making frequent examinations. At no time have there been definite signs of anything wrong with the cord, but as the prostate grew in size there could be made out in it indurated points, the largest and most distinct one being in the upper and outer portion of the right lobe. The gland was distinctly irregular in shape, as well as consistency.

Along with the first of the prostatic changes there was felt

what gave to the finger the impression of being a small, moderately hard lump of the size of a pea, flattened, oval and situated on the upper or posterior border of the gland, just to the (patient's) right of the seminal vesicle, and between the rectal wall and the prostatic capsule, the former being movable over the lump and the little mass being movable over the prostate. Clearly it was in the vein. Its nature puzzled me then and for a long time, until I had an opportunity of making an autopsy in a case where I knew one was to be found. It seemed to be too small for an enlarged lymphatic, and not hard enough for a phlebolith. It was, indeed, a cheesy or tubercular mass in one of the vesico-prostatic venous meshes.

Later on, other of these little masses appeared. They never grew above a certain size, and, though two or more of them are frequently situated near each other, they do not ever appear to coalesce. Meantime, the prostatic mass appeared to become thoroughly involved in the cheesy process, which extended to the vesical neck, causing the characteristic symptoms. Within the past year the left kidney appeared to be involved and the patient has sought, in the climate of California, relief which will hardly be found.

The following notes of the case from which the specimen on the table was kindly taken, post-mortem, for me by Dr. Voelker, formerly of St. Louis, now of Fort Worth, Texas, will serve to throw light on the pathological nature of the little cheesy masses.

E. S. H., aet 33, single, family history good. Never had any serious illness. In the Spring of 1879, after a tedious night's journey on a railway, the left testis suddenly swelled to twice the natural size. The organ remaining painless and smooth, and there was no hydrocele for about four months, during which time he carried it in a suspensory bandage, there being no increase in the size. Then fistulous tracts formed, and there was a discharge of thick whitish matter. In a few days the organ was removed, the wound healing kindly. It was three and a half years afterward when the first bladder symptoms appeared, their onset being sudden, and consisting of frequent micturition, being preceded by a feeling of tickling at the head of penis,

this sensation being caused by passing water. There was no pain at the end of micturition; no blood for the first month, though the urine was high colored. When he noticed blood, it came first as a few small clots, and then as a bloody urine. The frequency was the same during day and night.

When I saw him the frequency was about forty minutes and he estimated the quantity passed, each time, at two ounces. The urine contained albumen, pus cells and hyaline casts. No blood had been passed for a year; there was no fever, but he was extremely weak. Desire to pass water still more urgent at frequent intervals, but there was no pain at the end of the act. He was examined several times for stone with negative results, but it was observed that there was bleeding from the bladder on very gentle manipulation. The finger introduced into the rectum felt the prostate slightly enlarged, distinctly indurated towards the upper and outer part of each lateral lobe, and the left seminal vesicle appeared thicker and harder than normal. What is most to the purpose, there was to be felt, near the inner border of this left seminal vesicle, one of the little flattened, oval lumps attached neither to the prostate gland nor to the rectum, but being apparently in the vesico-prostatic plexus of veins. The diagnosis was made of cheesy or tubercular inflammation of prostate and kidney, and the patient sent home as incurable. He died soon after, and Dr. Voelker, formerly of Carondelet, made the autopsy, and sent the specimens which are on the table. The little lump above alluded to, was, on examination, a cheesy mass which, on section, could be squeezed out of the bed in which it lay. As far as I could judge, it was the result of local cheesy phlebitis. The left kidney, as can be seen, is completely destroyed by cheesy ulceration, the right having undergone compensatory hypertrophy. There is no serious involvement of the prostate, which accounts for the absence of pain at the end of micturition.

Doubtless, the finding of the tubercle bacilli of Koch in the urine voided by these patients would definitely settle the diagnosis in any, even the earliest stages, and it seems as if we ought to have here the best means of determining the question. The specimen before you shows a kidney almost destroyed by tuber-

cular cavities, with the characteristic anfractuous borders; yet several specimens of this patient's urine were submitted by me to two of our best pathologists, thoroughly competent to the work, who carefully stained and examined with negative results. The diagnosis in this case was made and given in writing to Dr. Voelker before the specimen was delivered to me, but the microscope gave no aid in the effort. My assistant, Dr. Burnett, has given much time and care to the staining and microscopic examination of the sediment from urines voided by these patients, but only in one instance has he been able to satisfy himself of the presence of the bacilli. This in a recent case of active prostatic tubercular disease, and the sediment was from the first two ounces of urine voided in a separate glass for the purpose of flushing out the urethra.

Recognizing the fact that results of the observation of so limited a number of cases may be misleading, I venture to call attention to the following points, mainly in the hope of eliciting the experience of others.

1. In all these cases it was observed that the spasmodic or nervous element that so characterizes all other inflammatory diseases of the urinary organs, that helps to retard their cure and that so frequently obscures diagnosis, was absent to a noticeable degree. Pain is common enough, but that spasmodic action of the detrusor urinæ, the vesical sphincter and the compressor urethræ with which surgeons are so familiar as occurring in the simple inflammatory diseases of the urinary and genital passages, was, in these cases at least, distinctly less in amount without being absent altogether. In one case sent to me by Dr. Justin Steer, where the right lobe of the prostate was quite hollowed out with tubercular ulceration, the ordinary symptoms of prostatic disease as it affects the frequency of micturition, especially at night, and the spasm were reduced to a minimum.

Second. Whenever in these cases, the disease having commenced in the prostate or extended to it from the testes, the urine became purulent and decomposed from cystitis or pyelitis or nephritis, the urethral pain as well as the activity of the urethral disease appeared to lessen, and in some cases to cease. In the case I had the privilege of seeing with Dr. Carson, al-

luded to before, the cavity in the prostate into which one could look was the cleanest and smoothest one I ever saw. The urine was decomposed and stinking that washed this cavity. This appears worth mentioning in view of the recent efforts on the part of at least one experimental pathologist to use the bacterium termo as a knight-errant to destroy, or failing that, to render quiescent or less harmful the tubercle-bacillus.

In three of my own cases I did perineal urethrotomy after the manner of Thompson, and used a soft catheter as a drainage tube, and I have seen one case in the practice of another so treated. In all the cases the relief was so great, the gain in flesh, the increase in appetite and the added comfort were such as to lead me to think the operation justifiable in selected cases.

In one case my patient gained twenty pounds in weight, and, with a bottle fastened within the wide trousers into which he dropped the drainage tube, he was accustomed to visit from room to room in the hospital, and enjoy his game of cards. In my own cases the drainage was kept up for eight, fourteen and twenty days respectively, and the wounds healed kindly on the withdrawal of the tube, but the frequent micturition quickly returned. The operation is in no wise curative, and the distress should be considerable before such a measure is undertaken for its relief. These were all cases where the disease had attacked the vesical neck or the trigone, or the seminal vesicle on one side.

There is a pretty widely entertained opinion that the disease only attacks the young or middle aged. Two of my cases were aged 62 and 61 respectively, and in both instances, the disease was thoroughly demonstrated. In one case a testis, ruined by cheesy inflammation was removed, and sections of its tissue showed Koch's bacilli; in the other the ulceration extended to the urethral meatus from the prostate, and the ulcer visible to the eye was plainly tubercular. Sir H. Thompson, who rejects all but cases in which autopsies were made, has two cases of tubercular prostatitis tabulated whose ages were near 70.

In only two cases of the twenty could any pulmonary phthisis be made out. In both the cases whose autopsies are mentioned

above no living trouble was found post-mortem. When general miliary tuberculosis results from, or follows cheesy foci in the genito-urinary organs, it seems far more frequently the case that the extension is in the line of the bowel and peritoneum.

The very healthy, and in some cases robust appearance of many of these patients is striking. In a majority of cases where there were the best evidences of tubercular disease of the prostate and one kidney, the patient bore all the appearance of sound health.

Hemorrhage at some time during the progress of the complaint, was a feature in all of the cases. The most frequent source of the bleeding was the prostatic urethra and the vesical neck, another observation which leads to the opinion that few cases—if any—of tubercular disease of these organs exist for any length of time without an involvement of the vesico-prostatic region. In many of the cases the gentlest introduction of a soft or hard instrument into the bladder was followed by bleeding. Another observation made often enough to impress the mind distinctly, was that after the prostatic symptoms had existed for a length of time, there came about a marked diminution of both bleeding from this part of the tract and of the subjective symptoms that so frequently lead to the examination for stone. In the few cases where it was possible for me to make the observation, the abatement corresponded in time with the appearance of decomposition in the freshly voided urine. As soon as the urine began to show the character and microscopic appearances of decomposition in the urinary passages, there began an abatement of those symptoms which point most distinctly to the existence of active inflammatory disease in the prostatic region. Long after the urine ceased to show, to the naked eye, evidences of hematuria, the microscope could detect blood cells in the fluid along with evidences of necrotic inflammation.

In both the cases where opportunity offered of making a necropsy, the disease evidently began in the testes, and in each case only one kidney was involved in the cheesy ulceration, the opposite one having undergone compensatory hypertrophy.

So far as treatment is concerned, constitutional remedies have yielded the best results in my hands. I have not seen a case

where I would be willing to remove a kidney affected with this form of disease, or where it has appeared to me there would result the slightest substantial benefit from such a procedure. Four times I have removed a testis where a single one was thoroughly disorganized by the cheesy necrosis and its fellow of the opposite side apparently sound. In other cases, where the disease appeared to be confined to one testis, I have recommended ablation, but it was objected to by the patients. Since several of the cases which have come under my observation have had a tubercular testis removed at a time when the disease appeared, from their histories, to have been confined to the organ excised, the operation has not appeared to be certainly curative. The patient whose kidneys and bladder are presented here to-night, is one in point. Nevertheless, I believe ablation should be performed in such cases more frequently, and do not doubt that lives have been saved—or at least greatly prolonged—by this measure. There is always, it seems, strong objection on the part of the patient to the removal of even one of these glands, most men, even at advanced age, being more willing to lose an organ essential to life. Human nature will have to change radically before double castration will become as fashionable with the masses, as double normal ovariotomy. Hence it is, no doubt, that there are so few recorded cases where removal of a tubercular testis—comparatively harmless as it is and lacking in special danger to life—can be referred to as having stayed the progress of tubercular disease or cheesy necrosis of the genital and urinary organs.

Where the disease has attacked or spread to the kidneys and urinary passages, the therapeutic agent which has answered best in my hands, is the combination of malt with the hypophosphites. Cod-liver oil, the alkaloids of bark and steel have not been of so much service in these cases, and the improvement in both general and local condition in many of the patients while using the first named remedy, was quite notable.

The College of Physicians of Philadelphia has a library that now contains 33,686 volumes and 1,393 unbound pamphlets, an increase of 2,592 during 1885. The library receives 184 current periodicals.

CASES FROM PRACTICE.

TWO CASES OF TRACHEOTOMY.

BY G. W. HOLCOMB, M. D., CALHOUN, MO.

CASE I.—S. P., a boy 6 or 7 years old, was taken with what the parents thought an ordinary cold, about December 1, 1879. December 4, Dr. Bronaugh, of Calhoun, Mo., was called to see patient and found him with a sore throat, harsh, rough cough, difficult breathing, suppressed voice, anxious look, slight febrile symptoms, and other characteristics of pseudo-membranous croup. Dr. B. informed the parents of the gravity of the case, and put the boy upon a treatment of chlorate of potassium and arterial sedatives. Patient continued to grow worse for two or three days, dyspnea increasing, when emetics of ipecac and alum were tried at intervals, but gave only temporary relief. December 8, I first saw patient in consultation with Dr. B. At this time his breathing was extremely difficult, great dipping in of sternum on inspiration, chest very imperfectly filled with air; cough, which had previously been harsh and rough, had almost ceased; his countenance had a pale lividity about it, nails blue, face swollen, arterial circulation weak.

Patient was absolutely bathed in perspiration from his great efforts to breath. In fact the *toute ensemble* of symptoms indicated a speedy dissolution. I advised that tracheotomy be performed at once, as a *dernier ressort.* The demand being very urgent, we had no time for preparation. With Dr. B's. assistance I went at once about the operation, cut down upon the trachea, pulled the isthmus of the thyroid gland down, and made a slit in the trachea from below upward, cutting through two rings, and held the wound open with an ordinary steel hair pin. The relief of the patient was very striking. After throwing out a quantity of mucus and some fragments of false membrane, his respiration became easy, color returned to face and lips, and his countenance assumed a pleasant and tranquil expression. The next question which confronted me

was what to do for a tube. I had no cannula with me, neither did I have one at home. Dr. B. held the wound open with a hair pin, whilst I went to a tin-shop four miles distant, and had the tinner take the spout from an ordinary one-gallon coal oil can, solder an oval piece of tin around the large end, file it off to a proper length. This was my tracheotomy cannula, not a very dainty looking one to be sure, but it answered the purpose admirably. I found Dr. B. with hair pin still in the cut and boy breathing well. I placed the tube in the trachea without any trouble. This brought on a paroxysm of coughing which, however, soon subsided, and I left the boy in good condition. No fever, no inflammation about the tissues of the neck, no lung trouble followed the operation. In fact the boy made an uninterrupted recovery, without an untoward symptom except such as would result from stoppage of cannula with pieces of false membrane and dried mucous discharge; we removed the tube once or twice daily for cleansing, which would be replaced at once after washing and anointing with carbolized glycerine. We also kept the tube as well cleansed as possible while *in situ* with a feather, occasionally dropping some warm water into the tube. We allowed the cannula to remain in the trachea ten days. We could have left it out sooner, but for some paralysis of the vocal cords. We discontinued it by degrees. After the cannula was left out permanently, the wound healed rapidly and the boy made a perfect recovery. It is proper to state here that this patient lived in a log cabin with extraordinary ventilation, not much chinking or daubing in the cracks. Floor was laid with oak boards with cracks between them from one to four inches wide. The weather was extremely cold at the time; I could not do anything towards regulating the temperature of the room. I mention this to show under what extremely bad hygienic surroundings this operation may result favorably.

Case II. C. H. a boy between two and three years old, heavy set, with a short fat neck. This boy, like the previous one, had light fever and symptoms of a cold two or three days before seeking medical advice. Dr. B. was called to see him September 24, 1883, and diagnosed it a case of (Simon pure) pseudo-membranous croup. He put him upon a treatment of chlorate of potassium and veratrum. He grew steadily worse, and on the night of Sept. 26, I was called in consultation. Symptoms being urgent, parents were told that tracheotomy was the only chance of life; and that I would

operate any time it became imperatively necessary. I could not get the parents to consent. Dr. B. remained with him during the night. He grew steadily worse, and on the next day I was recalled, parents having consented to an operation. The patient was slightly chloroformed, and I proceeded with the operation much in the same manner as in the other case, relief being equally as prompt, I placed a H. R. cannula in the trachea. Patient did well two or three days, when in the act of coughing the cannula got out of the trachea. I discovered that no air was passing through it, and yet the boy was breathing well. So I removed the tube entirely and the child breathed well without any tube for forty-eight hours. Then the cough assumed a croupy sound, and the breathing again became difficult. Cannula was replaced on the fifth day and allowed to remain five days longer, after which it was left out entirely and the boy made a good recovery.

No medicine was given in either case after the operation, save a little wine. Why the tube could be left out in the second case for two days, and good respiration go on, and then have to be replaced, I can only explain on the hypothesis that the membrane broke down, and then reformed a second time.

CASE III. I was called at night January 28, 1880, to see a child at S. W. Diagnosis true croup. I insisted on opening the trachea at once. The parents could not consent to the operation. I told them they must decide then or never.

Parents finally decided not to have tracheotomy performed. I went home, and was recalled at three o'clock A. M. The child died a few moments before my arrival. This case illustrates the usual results in true croup without an operation. A few years back some good surgical authorities were reluctant to admit tracheotomy (in true croup) within the pale of legitimate surgery. Even now a great many country doctors doubt whether it is a justifiable procedure, claiming that they are not prepared to do the operation for lack of instruments, that the surroundings are bad, that it requires experienced nurses to take charge of these cases after an operation and so on *ad infinitum*. I am a country practitioner myself, and appreciate the weight of these objections, yet I do not think they are insuperable difficulties. My first case demonstrates that tracheotomy can be performed with few instruments, and with exceedingly bad hygienic surroundings and yet terminate favorably.

There are sins of omission as well as of commission in the prac-

tice of surgery, and I opine, that in true croup our sins of omission are more numerous and serious than those of commission.

An eminent surgeon said it was as imperative to perform tracheotomy in true croup as it was to ligate the carotid artery if it was cut. I think this simile a good one; unless an operation is performed in one case the patient dies asphyxiated, in the other exsanguinated.

COMPOUND FRACTURE OF THE SKULL.—TREPHINING.—RECOVERY.

By H. H. Vinke, M. D., St. Charles, Mo.

In the evening of December 2, 1885, I was called, together with Drs. Johnson and Bruere, to see E. N., a little girl, æt. 5, who had just previously been kicked by a mule, over the right eye, sustaining a compound fracture of the skull. Upon examination it was found that the entire right frontal bone, and part of the sphenoid and parietal had been fractured and displaced; the lower fragment, which was driven down upon the brain, was overlapped by the upper one. The child presented symptoms of compression, such as slow breathing, emesis, and an unconscious and comatose condition. A button of bone was removed from the upper fragment by means of a crown saw, and with an elevator the lower fragment was carefully raised, the same slipping into proper position with a distinct snap. The wound was irrigated with a weak solution of corrosive sublimate, and dressed with the same antiseptic. The edges of the wound were carefully coaptated by means of sutures. I emphasize the circumstance that sutures were employed, not because I think it absolutely safe to close the external wound completely under all circumstances, but as this was a little girl in whom an unsightly scar would have been very objectionable, it was thought justifiable and expedient to do so in this case. If at any time, however, symptoms had appeared pointing to retention of inflammatory products and pus, the stitches would, of course, have been immediately removed. Dr. Bruere, in whose charge the little patient remained, reports that the child made a good recovery without any interruption. The highest temperature was reached on the second evening after the operation, when the thermometer registered 102°. The

wound healed almost entirely by first intention, with the exception of a small place about the centre of the wound, which closed by granulation. Nearly all of the recent communications on this subsubject tend to show that trephining since the advent of Listerism, has become a comparatively trivial operation, and that in well selected cases the mortality is very small. In order to determine to what extent these claims are sustained by actual experience, and to arrive as nearly as possible at the exact mortality of the operation *per se*, it is desirable that all cases operated upon under antiseptic precautions should be reported, whether they terminate successfully or otherwise.

THE ST. LOUIS POST-GRADUATE SCHOOL OF MEDICINE.—Among the notably striking new buildings completed during the past year in St. Louis, is that of the Post-Graduate School of Medicine, situated on the southwest corner of Jefferson and Lucas avenues.

The building is of pressed brick with terra cotta and brown stone trimmings, two stories in height, and so arranged as to give convenient rooms for the several special clinical departments besides the lecture room, dispensary and waiting room and faculty rooms on the first floor. On the second floor are rooms for the family of the resident physician, wards for patients, and the library and meeting room of the Medico-Chirurgical Society.

The dispensary has been in active operation already for about six months, and several of the clinics are now supplying abundant material for clinical instruction.

The gentlemen who are connected with this enterprise are determined to spare no effort to make the St. Louis Post-Graduate School of Medicine a success in the highest sense. The announcement states that the first session of the school will open March 1.

COURIER OF HEALTH.—This is the name of a popular journal of hygiene, edited by Dr. F. C. Hoyt, of St. Joseph, Mo. Dr. Hoyt is no novice in editorial work, and he will put forth his best endeavor to make the *Courier of Health* an exponent of the best that is known of sanitary science and popular hygiene.

THE PHARMACIST has consolidated with the *Western Druggist.*

EDITORIAL.

SCHULTZE'S METHOD OF TREATMENT OF ASPHYXIA OF THE NEW-BORN.

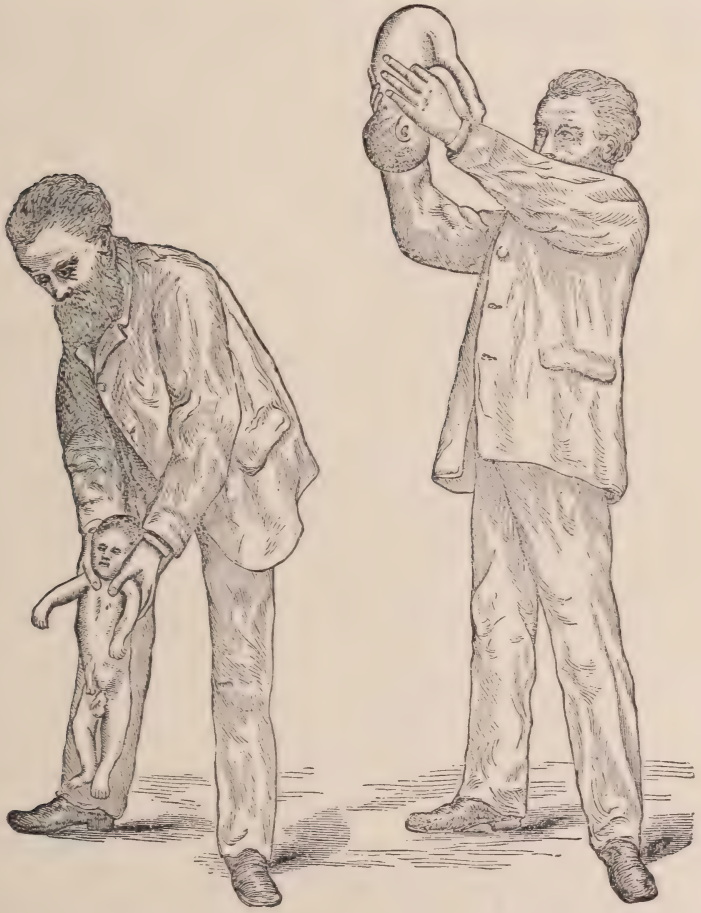
In a recent number of the *Glasgow Medical Journal*, Dr. Wm. L. Ried gives a brief account of the various methods of artificial respiration that have been suggested by different authors and the results of comparison that have been made as to the relative efficiency in treating the condition of asphyxia in the new-born.

He quotes Carl Behn as giving the following three desiderata of artificial respiration: first, ventilation of the lungs; second, excitation of the circulation; third, removal of foreign bodies from the air passages.

A series of experiments was made a few years ago by Dr. F. H. Champneys, Assistant Obstetrical Physician to St. George's Hospital, London, for the purpose of determining the relative efficacy of different modes of artificial respiration, with reference to the first point, viz., the ventilation of the lungs, or the quantity of air air taken into the lungs. He concluded that the well known method of Silvester was the most efficient. Dr. Reid himself is a strong advocate of Schultze's method, having observed its results as applied by Prof. Schultze himself at Jena, and having had quite extended experience with it in his own practice for the last six years.

The following brief description of the method is as given by Dr. Reid: "The child is to be suspended a few inches from the floor, by the two index fingers placed in the axillæ from behind, the thumbs lying loosely over the front of the thorax, and the other fingers spread also loosely over the thorax behind, the head being supported against the edges of the ulnar bones. Without de-

lay in this position, the child is swung sharply upwards until the operator's arms are extended horizontally, then the upward movement is continued more gently so as to bring the legs slowly past the perpendicular, and allow them to sink quietly against the front



of the child's belly. The weight of the latter is now supported by the thumbs in front of the thorax, and the chest pressed on all round by the fingers, and its arms laid against its sides. This compression through the diaphragm below, and the fingers all round,

causes aspirated fluids to flow freely from the mouth and nose. After being retained in this position a few seconds, the body is swung smartly down again into its former position, taking care that now there is no compression of the chest, either before or behind, but simply a suspension of the child on the fingers. During this movement the contents of the abdomen, partly by gravity, and partly by centrifugal force, fly away from the diaphragm, and dragging it down, enlarge the chest from below. At the same time the arms are separated from the sides, and by their muscular attachments drag the ribs upwards, and in this way air is sharply drawn into the lungs. These movements are continued every four or five seconds, unless when a considerable quantity of fluid continues to come from the mouth and nose, when the movement of expiration is on that account prolonged."

In case of an apparently dead-born child, Dr. Reid would first clear the mouth and throat from mucus with a finger of one hand, while holding it up by the heels with the other hand. If then sharp slapping of the buttocks does not excite respiration he would proceed at once with Schultze's method. In case the heart is beating strongly and the face is livid, the cord is not to be cut, but the mouth is to be cleared out and cold water is to be squirted on the pit of the stomach and the nape of the neck. If the heart's action is weak, the cord is divided, allowing three or four teaspoonfuls of blood to escape, and he would then plunge the child up to the neck in cold water, If this is unsuccessful, or when the child is born pallid and asphyxiated, after dividing the cord, clearing the throat, and pulling forward the tongue, he would resort to this mode of respiration.

If there are evidences of an attempt at voluntary respiration the movement should be so timed that the artificial shall coincide with the natural efforts. They should be repeated eight to ten times in about one minute, and then the child is dipped into a warm (95°–100° F.) bath. If no movement ensue, the same maneuvre is repeated. If there is a slight regular movement, dipping the child

in ice-cold water will arouse the medulla and establish respiration. Artificial means must not be discontinued until the heart's action is completely restored and the child cries loudly, unless cessation of the heart's beating indicates that the child is really dead.

Where the chest walls are weak, as in a premature birth, or where for any other reason air fails to enter and distend the lung after swinging the child a few times, it is wise to pass a catheter into the trachea and blow in a little air to distend the air passages before resuming the swinging.

Dr. Reid thinks that this method meets all the indications for artificial respiration more fully than any other, and has obtained better results from it than from Silvester's method.

MISSOURI CREMATORY ASSOCIATION.

There is an increasing tendency in various parts of our country to discard the long practised earth burial of the dead and to adopt cremation. Minds which at first shrunk from the thought of burning the remains of a dear one, have come to see that in point of fact it is far less revolting to contemplate the idea of the immediate transformation of such a loved form into volatile gases and clean, white ashes by the agency of intense heat, rather than that of the loathsome change which it undergoes in the ordinary process of slow putrefaction when buried in the earth.

This is well expressed in the prospectus of the Missouri Crematory Association, a copy of which we have just received:

"Let it be clearly and fully understood, that cremation is only a safe, cleanly, expeditious and economical method of facilitating nature's work; that it is simply an accelerated decomposition, and that precisely the same result—the oxidation of the body—finally obtains, whatever the process, whether accomplished in a hundred years or in an hour, and whether among the gloomy horrors and putrescence of the grave, or in the rosy glow of the crematorium.

Surely, when this is understood, a rational people cannot long hesitate which to choose." * * * "Cremation is effected in a superheated air-chamber, which allows no contact of flame or fuel with the body, while all the gases and volatile products of combustion are completely regenerated and rendered innocuous and odorless before being liberated.

"The body, covered with a pall, is placed in a catafalque in the chapel or reception-hall, whence it descends noislessly by means of an elevator to the incinerating chamber. This, by means of superheated air, has been raised to a white heat of about 2000° Fahrenheit. When opened to receive the body, the in-rushing cold air cools this chamber to a delicate rose tint; and the body, after an hour's bath of rosy light, is completely decomposed, nothing remaining but a few pounds (about four per cent of the original weight) of clean, pure, pearly ashes, which are taken out and put in an urn of terra-cotta, marble or other suitable material, and placed in a niche of the columbarium, or delivered to the friends, to be disposed of as they may desire."

It is estimated that the cost of incremation will be ten to twenty-five dollars. An urn, a niche in the columbarium and a tablet may cost an equal additional amount making the total cost for such a disposal of a human body, apart from the expense of removing the body from home to the crematory about fifty dollars. A crematory association has been formed in St. Louis, and already numbers three hundred members, among whom are included several physicians.

HABIT IN MENSTRUATION DEMONSTRATED.

"Man is but a bundle of habits," has been wittily said. In the light of modern research touching the influence of environment and of heredity, the force of habit becomes better understood and the quotation assumes the importance of a scientific dictum—with the usual reservations that attach to sweeping statements.

We know that an act performed to effect a definite purpose held in the mind as the result of much repetition, may become automatic; that is, be performed without direct mental impulse and supervision. How much more may acts that are constant functions of daily or periodical activity, be removed from the necessity of stereotyped regulation by nerve centres, so that they will persist to a greater or less degree, even under great derangement of the whole system or of the special apparatus through which the function operates. The legs of the centipede act harmoniously in moving the body even after decapitation; the frog manifests elaborate movements of muscular co-ordination after destruction of the whole encephalon.

In man, reference of pain arising in a stump to the extremity of the lost limb may be considered as an analogous illustration of the force of habit acting in spite of mutilation. Menstruation is defined to be a periodical discharge of blood from the genitals, dependent upon ovulation. Yet, incontestably, menstruation occurs after total extirpation of the ovaries. This is a most interesting phenomenon, and a remarkable instance of the force of habit acting under so serious a derangements of parts, as this sudden removal of an organ upon whose presence the whole manifestation originally depended. Several years ago, while the subject was under discussion in the Medico Chirurgical Society of St. Louis, a member pointed out the probability that habit would explain the seeming impossibility. Numbers 48 and 49, 1885, of the *Gazette Hebdomadaire* give reports of the proceedings of the Paris Surgical Society, in which the same subject appears. M. Terrier read a paper, "Remarks upon the Influence of Double Ovariotomy upon menstruation." The author stated that the subject latterly had excited much attention and that opinions were diverse.

He himself had removed both ovaries twenty-eight times; there were six deaths. All the women were of the age of sexual activity. The greater number were regular in their periods notwithstanding

the double ovarian disease. After simultaneous removal of both ovaries, thirteen patients entirely ceased to menstruate; six continued, but very irregularly, both as to times and quantity of the flow; in the remaining three cases the menses persisted very regularly up to the present—two, four and seven years respectively. M. Terrier thought that possibly in these three cases some of the ovarian tissue was left, and that in the six with irregular action nature was gradually accomodating itself to the complete suppression.

M. Championniére thought the phenomenon to be capable of explanation by physiological habit, and cited a strong case in support. He had removed the *whole* genital apparatus. During several months the patient had hemorrhage from the nose and rectum occurring at first regularly, then irregularly; it finally disappeared altogether.

Mr. Terrier pointed out that supplementary ovaries are very rare.

CARBOLIC ACID INJECTIONS AS CURE FOR HEMORRHOIDS.

Much has been written during the last few years concerning the carbolic acid injection treatment of hemorrhoids. Some surgeons have recommended it very highly; others have condemned it as dangerous, ineffective and unsurgical.

Dr. C. B. Kelsey, who has had a large experience in the treatment of rectal disease, is an enthusiastic advocate of this mode of treatment. Comparing the results obtained in this way with those from the use of the clamp and ligature, he says that in his opinion it possesses advantages over either of them. In a recent article in the New York Medical Journal (November 14, 1885), he says there are two accidents which may happen in this operation for which the surgeon must be prepared, viz., ulceration and abscess. Ulceration is the result of using a strong solution which causes a distinct slough of the tumor injected. He has never seen an ulcer

larger than a twenty-five cent piece, and has never known one to give serious trouble or refuse to heal kindly with proper local treatment. When ulceration does occur, it is well to cease the injections and to deal exclusively with this condition. Applications of nitrate of silver, iodoform, calomel, etc., are usually sufficient to induce cicatrization. The ulcer is not usually painful, and the discharge is about the only symptom of which the patient complains.

It is impossible to predict with any certainty the proportion of patients in whom a solution of a given strength will produce a slough and in how many a simple induration, though, as a rule, weak solutions are less likely to produce sloughs than the stronger ones.

Abscesses may be trivial or serious. The former develop just at the margin of the anus and result in a superficial fistula, which, if it does not spontaneously heal, can easily be laid open and dressed with lint from the bottom. The other abscess is a much more serious matter, deep in the cellular tissue of the ischio-rectal fossa. Such cases have been cited as among the most serious objections to this operation. They are due to the injection of too strong a solution or of undiluted acid either into a small tumor or into the cellular tissue entirely beneath the tumor. Pure acid injected into a large hemorrhoid may cause a limited slough resulting in a perfect cure, while the same injected *beneath* a small tumor is pretty sure to cause a considerable cellulitis.

As regards the production of pain, he says that, speaking in a general way, he does not expect much pain from a weak solution; but nevertheless it is sometimes met with. If it comes with any solution he is not surprised, and if it does not come he is pleased. Severe pain is quite exceptional.

So far as he has been able to formulate rules concerning this operation they are as follows:

1. Use only the purest crystallized carbolic acid, the purest glycerine and distilled water in the preparation of solutions. Each, when prepared, should be perfectly colorless and clear, the acid be-

ing in perfect solution. The glycerine is added to the solution of carbolic acid in water in just sufficient quantity to make a clear fluid, and the amount is not important. As soon as a solution begins to assume a yellowish tint, it should be replaced by a fresh one.

2. Use only the finest and most perfect hypodermic needles and a perfectly working clean syringe with side handles. After each injection, when the syringe is put away, clean it thoroughly, to be ready for the next time.

3. The treatment may be applied to every variety of internal hemorrhoids, no matter what their size. It is not applicable to external hemorrhoids, either of the cutaneous or the vascular variety, both of which may be treated by better means.

4. Before making an application give an enema of hot water, and let the patient strain the tumors as much into view as possible. Five drops of the solution should then be thrown into the largest tumor, as near its centre as possible, the needle being introduced at the most prominent part of the tumor and care being taken not to penetrate so far as to perforate the wall of the rectum into the surrounding cellular tissue. As it is impossible to tell certainly for at least twenty-four hours just what effect is to follow from an injection, it is best to inject no more than one tumor at a visit. If on the second day there is no pain nor soreness, he would inject another one. As to the immediate effect, there is likely to be some smarting at once, if the injection is made near the verge of the anus; but if above the external sphincter there is likely to be no discomfort for several minutes, when a sense of soreness and smarting will occur. In some cases pain coming on in about half an hour becomes quite severe and then subsides in a few hours. If it increases instead of disappearing, and on the following day there is a good deal of suffering, it is a pretty good indication that a slough is about to form.

5. The strength of the solution is to be adapted to the special case in hand. Into a large, vascular, well-defined, prolapsing tu-

mor he would inject five drops of pure carbolic acid, expecting to produce a circumscribed slough, resulting in a radical cure. A thirty-three-and-one-third per cent solution would probably produce consolidation and shrinkage without a slough, but the injection would have to be repeated several times. A small, slightly protruding, non-pedunculated tumor, merely felt as a prominence on the mucous membrane, may be cured by a single injection of a five per cent solution, which would cause it to harden and shrink, while a fifty per cent solution might give a good deal of trouble.

Of course in this, as in any other surgical procedure, some cases will be more successful than others and an occasional accident will occur; but on the whole, Dr. Kelsey regards it as the best plan of treatment yet devised.

GLYCOSURIA.

At the last meeting of the British Medical Association one of the subjects discussed in the Section on Medicine was that of glycosuria. The discussion was introduced by Dr. F. W. Pavy with a summary of 1,360 cases treated in private practice and with reference to whom he had kept accurate data. (British Medical Journal December 5, 1885.)

From these records it appeared, regarding the age at which the disease commenced, that in 30.73 per cent it was in the decade between 50 and 60 years, in 24.92 per cent between 40 and 50 years. So that in the period from 40 to 60 years of age over 55 per cent of the cases developed. He had no such data to which to refer concerning hospital patients, but his impression was that the fact was different as regards them, and that the most common age for the development of glycosuria in that class of patients is between 15 and 35 or 40 years of age.

There is no doubt, he thinks, that the disease runs in families. He cites some remarkable illustrations of this fact, one of the most

remarkable, perhaps, being that of a family of five, four of whom were diabetic; and further two aunts on the father's side and one on the mother's side had died of the same disease. A still more extraordinary case was that in which a grandmother, mother and daughter died of diabetes while a brother and two sisters of the latter also had the disease.

He thinks there is reason to believe that people of the Jewish race are more frequently affected with this disease than others, and that it is in them more amenable to treatment than in others.

In some cases the disease develops insidiously existing for some time before the patient is conscious of any ailment at all, going on for years without any serious impairment of the general health. He has observed this to occur more commonly with elderly people.

In other cases it comes on suddenly and terminates very speedily in death. He gives some striking illustrations of this latter fact. In one case the patient died on the fourth day after the recognition of the disease. One lady was able to date her illness from a definite evening when she had dined with some friends. Her health had previously been good, but during that evening she became thirsty, with a thirst that nothing could quench, and was at once thereafter found to be suffering from diabetes. One most acute case was that of a gentleman aged 55 years in whose urine it was known that albumen had been present for five or six years. The urine had been examined both for albumen and sugar three weeks prior to Dr. Pavy's first visit, and was found entirely free from sugar. At the time of Dr. Pavy's visit the symptoms of diabetes were extreme and three days after he died in diabetic coma.

Although when once developed this disease generally persists, Dr. Pavy says that he has occasionally met cases where it disappeared entirely, not merely when the patient was pursuing a diatetic and medicinal treatment but when all medication had been discontinued and an ordinary diet was used. Occasionally sugar is found temporarily in the urine, as the result of some special indulgence at table as in one case given where sugar was found on a single occasion after eating freely of some marmelade.

Dr. Pavy says that he has seen some cases in which diabetes mellitus and insipidus coexisted in the same subject. In the ordinary form of diabetes the amount of urine voided stands in relation to the amount of sugar to be eliminated, the sugar, in escaping, carrying off water from the system with it.

He has noted several cases of unilateral sweating associated with diabetes, and ataxia has been observed so frequently that he regards them as directly connected in some way. Exophthalmic goitre is another disease which he has noted in connection with diabetes. He does not believe in the theory involved in the use of the term acetonemia and regards the coma in which diabetic patients are so apt to die, as rather the result of exhaustion of certain nerve centres than of the action of any direct poison in the blood.

Dr. W. R. Thomas said that he had been led to classify cases of diabetes as of (1) hepatic or (2) cerebral origin or (3) accompanying or following some other disease, as Bright's disease, epilepsy etc.

Those diabetics whose disease is of hepatic origin are generally stout, have lived well, and often have indulged in too free use of stimulants, have a tendency to abdominal obesity, are at first florid and firm, but in time become pale and thin.

In these cases attention to diet is of even greater importance than in the other class. Sometimes they become disgusted with the diet, appetite fails and the patient begins to fail. He has found it necessary in such cases, to relax somewhat the severity of the diet and has found it of special advantage in such cases to allow a reasonable amount of green vegetables. Exercise is also of prime importance, as stimulating the glycogenetic function of the muscles and promoting a more active circulation through the liver and lungs. Opium is beneficial but he gives it as sparingly as possible. He finds the alkalies of value in this class of cases.

Diabetics whose disease is of neurotic or cerebral origin, are thin, spare men who have been inveterate workers, and worry about every little thing. They have had various dyspeptic troubles .

In these cases mental rest and change of scene and surroundings and occupation are of first importance. In the way of medicines he prefers to give potassium bromide at bed time, and general tonics, especially arsenic. Opium will check the excretion of sugar but should be given as sparingly as possible on account of its effects in other respects. It is necessary to restrict the diet of these patients; but they will not tolerate too rigid dieting.

Dr. E. Markham Sterrett read an account of a case of acute febrile glycosuria. The patient was taken suddenly ill with severe pain in the lower part of the back, giddiness, profuse sweating, anorexia, extreme thirst and urinating about double the usual amount. The pulse at time of first visit, one week after the onset of the illness, was 120 and weak, temperature was 102.8°F., tongue coated with a thick white fur. Urine was straw colored, sp. gr. 1038, and loaded with sugar. Under strict diabetic diet and half-grain doses of codeia, three times a day, salicylate of soda being administered in twenty-grain doses three times during one day to control the fever, he made a rapid recovery. On two occasions thereafter a month and two months later a trace of sugar was detected in the evening urine though none was found in the urine of the following morning.

Dr. Sterrett says that glycosuria may be associated with diabetes in three ways:

1. By accident: when fever occurs in a diabetic patient.

2. As a sequel to an acute disease.

3. As one of the phenomena of the fever, as in the case just related; as he regards it, a very rare occurrence.

In the first case the effect upon the excretion is uncertain. The sugar is commonly diminished, sometimes disappears entirely, in other cases is unaffected. In the former event the occurrence of diabetic coma is to be dreaded. No special comment need be made as to cases where diabetes is a sequel to some acute disease.

The third class of cases is rare, as already mentioned, and he regards it as uncertain whether the cure will be permanent or whether this was just the commencement of a case of genuine diabetes.

THE COMING MEETING OF THE AMERICAN MEDICAL ASSOCIATION IN ST. LOUIS.

On the second Tuesday in May next the American Medical Association will hold its annual meeting in St. Louis. The local committee of arrangements is pressing forward preparations for the meeting; and the profession may feel certain that nothing will be left undone to secure the convenience and comfort of the members, to facilitate the work of the committees and sections, and to make the meeting in every way pleasant and profitable.

There are many reasons why this meeting should be very largely attended. This will be one of the most important meetings in the history of the Association. The future prosperity of this, the only organization which stands in a position to act for the profession of the whole country, depends very largely upon the course that shall be pursued at the coming annual meeting.

It has been seriously claimed by some that the American Medical Association is not representative of the American profession, that its membership includes only a mere handful in comparison with the large number of physicians all through the country; that many of the ablest and most influential men of the profession keep aloof from it; that among the most active of its leaders, those who have most to do with guiding its counsels, are men who, though they may be *sans peur* are certainly not *sans reproche*, men whose motives may be impugned, whose characters may be reproached.

For the little grain of truth which may be found in a careful investigation of such statements, the profession at large has only itself to thank; and the constant iteration and reiteration of such statements by those who are inimical to the best interests of the profession, and who, to further their own selfish ends, are seeking to pull to pieces and to destroy the only organization which affords now any opportunity for general representation of the profession, do as serious harm as direct and malicious falsehood.

We cannot too strongly urge upon our readers the importance of

the obligation which rests upon them as members of the medical profession to exert all the influence which they can bring to bear to secure the success of the coming meeting in St. Louis. See to it in all parts of the country that the ablest, most judicious, wisest and strongest men of the profession are chosen as delegates to the American Medical Association. Let such men make the necessary sacrifice of personal comfort and interest for the good of the whole profession, and demonstrate that the profession of the United States can and will maintain an association whose work shall truly represent its ability and strength. Come in such numbers and with such spirit and enthusiasm as shall prove that the Asssociation is neither dead nor dying. Put in the front as leaders men who will command the respect and implicit confidence of every member of the medical profession, men whose leadership all will cheerfully follow. Let those, who for some few years now have neglected to attend to the meetings of the Association, and have withheld their support and counsel, return to their duty and loyalty, and in this time of danger give their aid to carry the Association to a triumphant success and a glorious future.

Some questions must come before this coming meeting which will need most judicious and wise management. We have purposely refrained from entering into a discussion of the International Congress imbroglio. We do not purpose entering into such a discussion now. But we would urge upon all who can do so to come to the St. Louis meeting of the American Medical Association, "with malice toward none and charity to all," ready to unite in a determined effort to make the Association in all respects worthy of the support of the whole profession.

DR. OCTAVE PAVY.

An effort is being made to secure from Congress a suitable recognition of the scientific and medical services of the late Dr. Octave Pavy, the surgeon of the Lady Franklin Bay Polar Expedition, better known as the Greely expedition.

Inasmuch as Dr. Pavy took a degree in medicine in St. Louis, it has seemed to us appropriate to call the attention of our readers to a brief résumé of his work, for the particulars of which we are indebted to Mrs. Pavy.

Dr. Pavy was born in New Orleans, La., June 22, 1844. His education, preliminary, scientific and medical, was obtained in France where he graduated at the University of Paris, in science, art and medicine. During the years of study he also traveled extensively in various directions, gaining a knowledge of navigation also.

Soon after graduating in medicine he was appointed associate commander with the distinguished scientist and Arctic explorer, Gustave Lambert, in a French Arctic exploring expedition, in which the Emperor Napoleon took great interest, and toward which he contributed $10,000. The Franco-Prussian war and the following political changes in France in 1870-1 prevented the carrying out of this intended exploration. Lambert and Dr. Pavy entered the army, the former losing his life on the field of battle. Pavy organized a free zouave corps, Lieut. Beauregard, a nephew of Gen. Beauregard, of the confederate army, being associated with him in command, and sharing with him the expense of organization and outfit. Complimentary notice was made later of the services rendered by the corps.

After the close of the war Dr. Pavy came to the United States to launch an individual enterprise, which was commonly known as the "Pavy Expedition to the North Pole," to set sail from San Francisco and follow the Behring's Strait and Wrangel Land route. He spent some months in the leading cities of this country; and the project in which he was so much interested and in which he had embarked all his fortune, seemed just on the verge of successful accomplishment, when the sudden death of a financial associate and supporter necessitated the abandonment of the enterprise and sunk all the property which Dr. Pavy had invested in it.

Four years elapsed, during which Dr. Pavy took a course of lectures in the Missouri Medical College in this city, in order to to familiarize himself with English professional phraseology. During this time he married a lady who was heartily in sympathy with his aims and aspirations.

In 1880, June 21, Dr. Pavy sailed on the Gulnare with the Howgate expedition. During the year, July 1880 to July 1881, Dr. Pavy explored the coast of Greenland as far as Upernavik, a distance of three hundred miles, studying the fauna and flora of the country, acquiring the Esquimo language, learning to drive the dog teams, purchasing supplies, especially antiscorbutic food, for the Greely party. Though by his foresight and ability much time was thus saved to the party, no acknowledgement of his services in this regard has ever been made.

In July 1881 the Proteus, sailed from St. Johns, N. F., and took on board ths supplies and the surgeon, Dr. Pavy, for whom the secretary of war sent contract papers. Dr. Pavy acted as surgeon and naturalist to the party, and in each capacity his services were invaluable.

His success in keeping the party free from scurvy is specially noteworthy. In referring to this, Mrs. Pavy said: "No party ever wintered so far north; none ever endured such severe seasons of cold; no party was ever so long in such a latitude, and yet no party ever was so free from ill health and scurvy. Dr. Pavy's journals for three years give evidence, upon every page, of his daily and hourly solicitude and watchful care for the health of the entire command." Only a few days before the death of several members of the party, they all signed a testimonial of their appreciation of the professional skill and zeal of Dr. Pavy and of his success in guarding the health of the party up to that time. Considering the high latitude reached, the extreme and protracted cold endured, and the poor supplies of the party on the one hand and on the other the experience of every party that had engaged in Arctic explorations previously, the success of Dr. Pavy in keeping

the party free from scurvy during their three years' absence is wholly unprecedented.

There is reason to believe, further, that if Dr. Pavy's advice had been followed with reference to the point where provisions should be stored, viz., at Cape Sabine instead of at Littleton Island, the result of the expedition might have been quite different from what it was. It is claimed by some of Dr. Pavy's friends who have looked into the matter more fully than we have had the opportunity to do, that the carrying out of the plans proposed by Dr. Pavy in April would have resulted not only in saving his own life, but those of all the party, and the preservation of perfect records instead of mutilated ones.

The following is regarded as a fair statement of the results of Dr. Pavy's work as an explorer:

"Dr. Pavy and Lieut. Lockwood proved that Lincoln Sea, during two successive seasons, was full of floating ice instead of being the perpetually frozen ocean that Sir Geo. Nares described. The Greely party greatly extended the limits of the Nares explorations, both in Greenland and Grinnell Land, and have given a severe blow to Sir Geo. Nares' 'Paleocrystic Ice,' and to the theories which Nares founded upon it. The fact that two of Greely's sledge parties, one led by Dr. Pavy with Rice, the other by Lockwood and Brainard, were stopped by open water in the polar basin, and that both were at times adrift in strong currents which threatened to carry them helplessly away northward, would seem to show that the polar basin is not the solid sea of ancient immovable ice which Sir Geo. Nares described, and which he declared was never navigable."

That Dr. Pavy's services in connection with the Greely expedition have not been recognized as they should have been by Congress, is apparent at a glance. It is to be hoped that even yet appriate though tardy recognition may be given one whose life was sacrificed in the service of his country as truly as if death had met him on the field of battle, as it did his former comrade Lambert.

BOOK REVIEWS AND NOTICES.

A Practical Treatise on Massage. Its History, mode of Application, and Effects, Indications and Contra-Indications, with Results in over Fourteen Hundred Cases. By Douglas Graham, M. D., Fellow of the Massachusetts Medical Society. *New York: Wm. Wood & Co.*, 1884. Cloth, 8vo., pp. x—286.

The times are quite ripe for a practical book on the subject of massage. In all our large cities the profession certainly and the people mostly are becoming familiar with the term, and its proper signification. But there is not yet a sufficient number of those who can intelligently apply it. More general and more thorough instruction as to its possibilities of cure and its mode of application is required. To some there is a mysticism about it. Are its effects due to animal magnetism? Are the successes of a manipulator due to hereditary powers? We lately met a professional man who stated that his ability to benefit was quite peculiar to himself, developed while he was still an infant, for his mother having a wen on her shoulder, his hand when nursing rested upon and manipulated it until in a few weeks it disappeared, as a consequence; and this mystical power, so early developed, has remained his ever since. To the other extreme are those who believe that there is little or nothing in massage except a trifling superficial friction which any one can employ, using, if necessary, a little vaseline on the hands. The author places this whole subject in its proper light, and shows that it is both a science and an art, and that some knowledge of anatomy and an acquaintance with natural and morbid consistency of tissues are necessary to its successful use.

One cannot peruse this, the most valuable work on the subject yet penned, without the conclusion that there is more to the subject than he had anticipated. And there is no doubt that we have here one of the almost lost and hidden arts, which, if correctly used, is capable of exerting a power of good.

The book defines massage and gives its history, how to apply it, its physiological effects, and the diseases to which it is applicable,

two hundred pages being given to the latter, and including neurasthenia, nervous exhaustion and anemia, affections of the uterus and its surroundings, of the liver, stomach, intestines, perinephritic indurations, affections of the central nervous system, hemiplegia infantile paralysis, locomotor ataxia, for the relief of pain, progressive muscular atrophy, pseudo-hypertrophy of the muscles, chorea, writer's cramp, neuralgia, peripheral paralysis, muscular rheumatism and rupture, elephantiasis, edema, sprains and joint affections; massage of the head, face, eyes, ears, throat, etc., etc.

Many excellent things are said in the book, but space will not allow quoting them: reference will be made to but one taken at random. On page 58, having spoken of what others had written, the author says: "We may fairly conclude that massage and remedial movements are usually done 'every which way and t'other way' in hopes of hitting upon a right way; but from what has been said in this chapter, we have a right to expect and require a tolerable degree of precision. Cures by massage are not sinecures, but the task of applying it is rendered much greater than is necessary from the crude notions that prevail on the subject; and even Dr. Weiss, of Vienna, recommends the physician to drink a glass of good old wine every fifteen minutes, if he himself undertakes such arduous work. (*Wiener Klinic*, p. 335, 1879.) This, if furnished at the patient's expense, might somewhat be an inducement that would prolong the treatment unnecessarily. But such suggestions proceed from the same misconceptions of massage as require the removal of hair and the constant use of grease, and those who cannot do massage without them certainly cannot do anything worthy of the name with them. People of education, refinement and delicacy of touch can do massage a great deal better than those who rely upon the unguided strength of muscle alone. In quality and endurance the strength necessary for doing massage is different from that required to scrub a floor, swing a sledge hammer or win a boat race."

The book is well printed on good paper. We could wish that it might be very generally read by the profession.

The absence of wood cuts is noticeable. We can but believe that illustrations, possibly photographic, would greatly have assisted in the elucidation of the text, the author to the contrary notwithstanding.

A full index closes the volume. A. J. S.

A Text-book of Medical Chemistry, etc. By Elias H. Bartley, M. D., with forty illustrations. *Philadelphia: P. Blakiston, Son & Co.* 8vo., pp. 376; cloth; $2.50.

A peculiar difficulty presents itself in selecting from the wide domain of modern chemistry such parts as are suitable to the wants of students of a special profession. For only a comparatively small percentage of the detail is really so interesting and important for each special application as to become indispensable, yet to understand even this small portion, a sufficient general knowledge of the whole field and its immediate surroundings is absolutely requisite. Hence when the selection has to be made for the medical profession a very delicate balancing of the *too much* and *too little* is necessary, and it is by no means easy to determine the line of demarcation between the subjects admitted and rejected. It has been the design of the author to sift the vast material with this object in view, and he has succeeded in comprising within the size of a moderate volume the essentials of chemistry necessary for medical students, avoiding on one side the barren style of a mere quiz-compend, and on the other, the superabundant detail of the special reference work.

C.

A Practical Treatise on Palatable Prescribing. By B. W. Palmer, A. M., M. D., *Detroit: Geo. S. Davis.* 1884. 8vo.: pp. 136; cloth.

This volume is not a "treatise" at all. It is simply a selection of prescriptions from various text-books and journals, arranged with little judgment, under the titles of various diseases.

It is not even a creditable advertisement of the drug firm whose preparations are specified in many of its prescriptions.

The Principles and Practice of Surgery. By John Ashhurst, Jr., M. D., etc. Fourth edition, enlarged and thoroughly revised. *Philadelphia: Lea Brothers & Co.*, 1884. 8vo.; pp. 1118; cloth or sheep. (St. Louis: J. H. Chambers & Co.)

This new edition contains fifty-four pages more than the preceding one. Some of the illustrations are new and specially prepared for this work, while others are judiciously selected from other standard works on surgery.

Dr. Ashhurst writes concisely and clearly, and his work gives a fair view of the field of modern surgery as practised and taught in the United States.

Practical Therapeutics: A Compendium of Selected Formulæ and Practical Hints on Treatment Systematically Arranged, Interleaved and Copiously Indexed. By Edward J. Bermingham, A. M., M. D., etc., etc. *New York: J. R. Bermingham*, 1885. 8vo.; 430; cloth. (St. Louis: J. H. Chambers & Co.)

The purpose of this volume is indicated in the title. It consists of a selection of formulæ or prescriptions suggested by various eminent practitioners for the treatment of different diseases. One of little experience in prescription writing might gain many helpful suggestions by reference to such a work.

Modern Therapeutics of the Diseases of Children, with Observations on the Hygiene of Infancy. By Joseph F. Edwards, M. D., etc. *Philadelphia: D. G. Brinton*, 1885. 8vo.; pp. 346; cloth, $4.00; sheep, $5.00. (St. Louis: J. H. Chambers & Co.)

This volume forms the fourth of the series planned by the late Dr. Geo. H. Napheys, the first two volumes of which were prepared by him, viz., "Modern Medical Therapeutics," and "Modern Surgical Therapeutics."

The plan of the work is to give concisely the details of treatment of the most eminent specialists, both American and foreign.

Dr. Edwards has had exceptional opportunities for collecting material, and the experience which he had in editing the recent editions of Dr. Naphey's work has served him well in the preparation of this one.

Second Report of the State Board of Health of the State of Tennessee. *Nashville: Albert B. Tavel.* 1885. 8vo.; pp. 600; cloth.

In addition to the formal report of the secretary this volume contains a number of very valuable papers on various sanitary topics, and some interesting vital statistics.

The volume makes a showing quite creditable to the Tennessee State Board of Health.

Berlin as a Medical Center: A Guide for American Practitioners and Students. By Horatio R. Bigelow, M. D., etc. *Sandy Hook, Conn.: New England Publishing Co.* 1885. 12mo.; pp. 117; cloth. (St. Louis: J. H. Chambers & Co.)

This little volume contains in a permanent form a series of articles which first appeared in the *New England Medical Monthly*. To any American student or practitioner planning a course of study in Berlin, the directions and information therein given will be exceedingly valuable.

A Guide to the Practical Examination of Urine, for the use of Physicians and Students. By James Tyson, M. D. Fifth Edition, Revised and Corrected, with Colored Plates and Wood Engravings. *Philadelphia*: *P. Blakiston, Son & Co.*, 1886. 12mo.; pp. 249; cloth, $1.50. (St. Louis. Jas. H. Chambers & Co.)

The well deserved popularity of this volume of Dr. Tyson's has exhausted the fourth edition, and has given him the opportunity of introducing into this fifth edition the results of recent studies and experiments with the new and delicate tests for albumen to which attention has repeatedly been called in these pages. Naturally associated with this is a consideration of peptones and mucin as constituents of urine, and also Dr. Oliver's indigo-carmine test for glucose.

These constitute the chief additions to be noted in the new edition of this book, than which there is no better work on the subject as a practical manual.

Alcoholic Heredity.—The operation of no natural law is more potent than is the operation of the law of alcoholic heredity. The drunken mother, the drunken father, or a drunken grandparent may hand down to their descendants an alcoholic stain which not even a lifetime of entire abstinence from intoxicating drinks can eradicate. I have known men and women of the highest intellectual culture and the most irreproachable morals, of stony will and deep thought, of unaffected piety and exalted aim, who have been compelled by bitter experience to acknowledge to themselves the saddening fact that they could never dare to dally with strong drink. The continuous and victorious struggle of such heroic souls with their hereditary enemy—an enemy the more powerful because ever leading its treacherous life within their breasts—presents to my mind such a glorious conflict, such an august spectacle, as would evoke the highest efforts of the painter and the sculptor. Before so protracted and so lofty a combat, the immortal group of Laocoon contending with the serpents, grand though that work of art is, must pale its uneffectual fires.—*Norman Kerr in Journal of Inebriety*, Oct., 1885.

Philadelphia Physicians number 2,500. New York physicians number about 2,900.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Wasting Diseases of Infants and Children. By Eustace Smith, M. D., London. Fourth Edition. New York: Wm. Wood & Co.; 1885. 8vo., pp. 278; cloth (Wood's Library).—Epilepsy and Other Chronic Convulsive Diseases; Their Causes and Treatment. By W. R. Gowers, M. D., F. R. C. P., etc. New York: Wm. Wood & Co., 1885. 8vo.; pp. 255; cloth (Wood's Library).—Official Formulæ of American Hospitals. By C. F. Taylor, M. D., Medical World, Philadelphia. 32mo.; pp. 238; cloth.—Practice af Medicine. By Chas. H. Fagge, M. D., Philadelphia: P. Blakiston, Son & Co. 8vo., vol. I., pp. 1040; cloth.—Diseases of the Lungs. By Prof. Germain Sée; Translated by E. P. Hurd, M. D. With Appendices by Geo. M. Sternberg, M. D., and Prof. Dujardin-Beaumetz, 1885. New York: Wm. Wood & Co. 8vo.; pp. 398; cloth (Wood's Library).—Diseases of the Brain and Spinal Cord. By W. R. Gowers, M. D., F. R. C. P., 1885. Wm. Wood & Co.; 8vo.; pp. 293; cloth (Wood's Library).—Clinical Notes on Uterine Surgery. By J. Marion Sims, A. B., M. D., New York; Wm. Wood & Co. 8vo., 401, paper, $1.00.—Textbook of Nursing. Compiled by Clara S. Weeks. New York; D. Appleton & Co., 1885. 8vo., pp. 392; cloth. (St. Louis Stationery and Book Co.)—The Pedigree of Disease. By Jonathan Hutchinson, F. R. S., New York: Wm. Wood & Co., 1885. 8vo., pp. 113; cloth. (St. Louis Stationery and Book Co.)—Facts and Mysteries of Spiritism. By Joseph Hartman, Philadelphia. Thomas W. Hartley & Co., 1885. 8vo.; pp. 378; cloth, $1.50. (St. Louis Stationery and Book Co.)—Aids to Obstetrics (Double Part). By Samuel Nall, B. A., M. B., etc.; New York and London. G. P. Putnam's Sons, 1885. 12mo., pp. 142; paper, 25 cents; cloth, 50 cents. (St. Louis Stationery and Book Co.)—Aids to Medicine. Part III. (Double Part.) By C. E. Armand-Semple, B. A., M. B., etc. New York and London; G. P. Putnam's Sons, 1885. 12mo., pp. 112; paper, 25 cents; cloth, 50 cents. (St. Louis Stationery and Book Co.)—Aids to Gynecology. By Alfred S. Gubb, L. R. C. P., New York and London. G. P. Putnam's Sons. 12mo., pp. 76; paper 25 cents; cloth, 50 cents. (St. Louis Stationery and Book Co.)—Aids to Surgery. By Geo. Brown, M. R. C. S., etc. New York and London; G. P. Putnam's Sons. 12mo., pp. 72; paper 25 cents; cloth, 50 cents. (St. Louis Stationery and Book Co.)—Practical Notes on the Treatment of Skin Diseases. By George H. Rohé, M. D., Baltimore; Thomas & Eraus, 1885. 12mo., pp. 62; flexible cloth.—Climatology and Mineral Waters of the United States. A. N. Bell, A. M., M. D., 1885. New York. Wm. Wood & Co. 8vo., pp. 368; cloth. (Wood's Library)—Organic Materia Medica and Therapeutics. James Young Simpson. New York: J. H. Vail & Co., 1885. 12mo., pp. 337; cloth

$2.00.—Medical Physics. By John C. Draper, M. D., LL. D., with 377 illustrations. Philadelphia, Lea Brothers & Co., 1885. 8vo., pp. 733; cloth. (Stationery and Book Co.)—An Atlas of Clinical Microscopy. By Alexander Peyser, M. D,, Translated and Edited by Alfred G. Girard, M. D. First American from the Manuscript of the Second German Edition with additions. Ninety plates with one hundred and five illustrations. Chromo-Lithographs. New York, D. Appleton & Co,. 1885. 8vo., pp. 188; cloth. (St. Louis Stationery & Book Co.)—Inorganic Chemistry. By Edward Frankland, Ph. D., D. C. L., etc., and Francis R. Japp, M. A., Ph. D., etc. With fifty one illustrations and a plate. Philadelphia: Lea Brothers. 8vo., pp. 693; sheep. (St. Louis Stationery & Book Co.) Microscopical Technology. By Dr. Carl Friedlaender. Translated by Stephen Yates Howell, M. A., M. D., New York and London. G. P. Putnam's Son, 1885. 12mo., pp. 249; flexible cloth, $1.00. (St. Louis Stationery and Book Co.)—Diseases of Sedentary and Advanced Life. By J. Milner Fothergill, M. D., New York: D. Appleton & Co., 1885. 8vo, pp. 295; cloth. (St. Louis Stationery & Book Co.)—Psychiatry. By Theodor Meynert, M. D., Translated by B. Sachs, M. D. Part 1. The Anatomy, Physiology and Chemistry of the Brain. New York and London. G. P. Putnam's Sons, 1885. 8vo., pp. 285; cloth, $2.75. (St. Louis Stationery & Book Co.)

PAMPHLETS AND REPRINTS.—Sex. By Robert Funkhouser. (Reprint from Missouri State Medical Society Transactions, 1885.)—Iritis: Its Relation to the Rheumatic Diathesis and its Treatment. By C. J. Lundy, A. M., M. D. (Reprint from the Physician and Surgeon.) New York Cancer Hospital First Annual Report, 1885.—Report of Proceedings of the Illinois State Board of Health Quarterly Meeting Springfield, Oct. 29, 30, '85.—Annual Report of the Surgeon General of the U. S. Army, 1885.—Report of Proceedings of the Illinois State Board of Health. Quarterly.—Transactions of the American Dermatological Association at its Ninth Annual Meeting August 26, 27, 28, 1885.—Report of Committee on Disinfectants of the American Public Health Association, 1885.—Transactions of the American Surgical Association. Vol. III., Edited by J. Ewing Mears, M. D., Philadelphia, P. Blakiston, Son & Co., 1885. 8vo., pp. 383; cloth. (J. H. Chambers & Co.)—A Reply to a Letter Entitled "Dr. Joseph Holt and Steam as a Disinfectant" (N. O. Med. and Surgical Jour., Nov. '85).—Note on a Case of Post-Neuralgic Insanity. By C. H. Hughes, M. D., St. Louis (Alienist and Neurologist).—Hydrogen Peroxide. By Wm. B. Clarke, M. D., Indianapolis, Ind. (Chicago Medical Era, July '85.)—Tabular Statistics of One Hundred Cases of Urethral Stricture Treated by Electrolyses without Relapse. By Robert Newmann, M. D. (N. E. Med. Mo.)--Therapeutics of High Temperature in Children. By Wm. P. Watson, A. M., M. D., etc. (Arch. of Pediat., Sept., 1885.)—Interesting Reflex Neuroses. By J. J. Caldwell, M. D. (Va. Med. Mo., May, '83.)—A Study of Epilepsy. By J. J. Caldwell, M. D. (Gaillard's Jour.)—Rectal Medication. By D. W. Cathell, M. D. (Reprint from Trans. Med. and Chir. Faculty of Maryland.)—Re-

marks on the Treatment of Urethral Stricture by combining Internal and External Urethrotomy. By Reginald Harrison, F. R. C. S. (Reprint from Brit. Med. Jour.)—Die Radikalbehandlung der Hypertrichosis mittels Elektrolyse. Von W. A. Hardaway, M. D., St. Louis. (Monatshefte für Practische Dermatologie, 1885, Nr. 10.)—The Metric System in Medicine. By Llewellyn Eliot, M. D. (Reprint from Medical Record.)—Decisions under the Medical Practice Laws. (Reprint from Seventh Annual Report Illinois State Board of Health, 1885.)—Professional Reports and Experiments in the Treatment of Zymotic Diseases, by Syrups and Subcutaneous Injections. A New Electric Light in the Diagnosis and Treatment of Diseases of the Nose and Throat, with a Practical Demonstration. By Dr. William Chapman Jarvis. (Reprint from Trans. Med. Soc. N. Y., Feb., 1885.)—The Metric System in Medicine. By Llewellyn Elliot, M. D.—Introductory Lecture on Tumors. By N. Senn, M. D. (Reprint from Phil. Med. Times.

Railroad and Steamboat Fares to the American Medical Association Meeting at St. Louis.—The St. Louis Association of General Passenger and Ticket Agents, representing the railroads, terminating at St. Louis have announced that the tickets to the American Medical Association Meeting on May 4th, will be sold at the rate of one and one-third full fare for the round trip. The roads represented in this association are Chicago, Burlington and Quincy; Diamond Joe Line; Indianapolis and St. Louis; Louisville, Evansville and St. Louis; Louisville and Nashville; Missouri Pacific; Ohio and Mississippi; St. Louis and Cairo Short Line; St. Louis and San Francisco; St. Louis, Keokuk and Northwestern; St. Louis Iron Mountain and Southern; St. Louis and St. Paul Packet; Vandalia Line; Wabash, St. Louis and Pacific.

The other railroads of the country have not as yet taken official action in the matter, but we are assured of the same rate being quoted by the majority.

Massage in Headache.—Nordstrom recommends massage in a form of hemicrania, accompanied by points of induration and tenderness on pressure, which he says are of muscular origin and due to chronic inflammation.—*Rivista Clinica—Med. Record*, Dec. 12, 1885.

The Medical Analectic.—Dr. R. W. Amidon is now the editor of this journal, and plans some changes which will greatly enhance its value.

REPORTS ON PROGRESS.

MEDICINE AND THERAPEUTICS.

Bilateral Hemorrhagic Pleurisy after Thrombosis of the Vena Azygos.—A man, aged 32 years, received a kick from a horse in the right inguinal region, from the indirect effects of which he died eight weeks afterwards. Post-mortem: The soft parts over the right pubic region were infiltrated and the bone itself crushed and inflamed. Thrombus of the right vesical plexus of veins; also, in the left azygos its whole length. The inferior vena cava contained a thrombus about the level of the renal veins. In the thorax the azygos exhibited a thrombus that filled its cavity. All the veins opening into this vessel were filled with red thrombi, which condition resulted in bilateral hemorrhagic pleurisy. The intercostal veins being occluded, there was transudation; at first of a serous nature, but passing into a hemorrhagic and inflammatory. There was a quantity of reddish liquid in each pleural cavity with clots. The parietal pleura was irregularly covered with fibrinous patches. The left lung was reduced to its minimum volume, the right lung was also compressed, both being covered with fibrinous membrane. The intercostal veins were distended with blood even into the capillaries. The right pulmonary artery contained a large embolus at its first division; the right lung in the expanded portion was decidedly edematous.

The man had walked to the hospital, undressed himself and shortly after died. The difficulty of respiration had gradually made itself felt, and compelled his entrance into the hospital.—*Virchow's Archives*, Vol. 102, 2d part, page 345.

Metallo-Therapy.—Dr. Moricourt continues the result of his recent studies in metallo-therapy in a paper which ends with the following conclusions:

1. A certain number of neuropathic patients present an absolute anesthesia which the external application of metals does not cause to disappear. In these the metallic idiosyncrasy is determined, and

sensibility is restored by the use of subcutaneous injections of the metallic salts.

2. Subjects affected with lethargy, catalepsy or somnambulism, just like those hypnotisable or magnestisable are almost always (nine times in ten) sensitive to copper or gold, sometimes to both metals. This may be determined by the subcutaneous injection of a few milligrams of sulphate of copper or of chloride of gold.

3. Copper and gold are (nine times in ten) the true detecters of hypnotic sensibility to the exclusion of the magnet and of the pretended "hypnoscope" of M. Ochoroweiz.

4. When the subjects can be thrown into a state of somnambulism, a rapid process of metalloscopy consists in placing successively in the hand or upon the forearm for a few minutes the different metals. The metal which produces the strongest sensation is that which should be administered internally. In nine cases out of ten it is found to be copper or gold.

The dose of the metal administered internally should be smaller according as it has acted more energetically on external application or by hypodermic injection. In case of gastric intolerance it is necessary to diminish the dose of the metal and to add a little extract of opium, gentian, nux vomica, etc., according to circumstances.

6. The subcutaneous injection should be made with solutions of the strength of 1 to 500 or even 1 to 1000 for the salts of iron (citrate) and especially of silver (nitrate).—*L'Union Med.* Oct. 22.

Cannabis Indica as a Narcotic.—H. Lewis Jones values it highly to produce sleep, especially where sleeplessness is accompanied by delirium. In the delirium of typhoid fever and erysipelas and in delirium tremens it is most valuable, a few doses being sufficient to give refreshing sleep. Two or three grains in pill form, he gives every four to six hours. Frequently the first dose is sufficient. In only one case, that of an excitable young woman, has there been any complaint of hallucinations.—*Practitioner*, Oct., 1885.

Treatment of Pneumonia by Quinine.—F. P. Atkinson commends highly the work of the Collective Investigating Committee of the British Medical Association, and thinks that one of the most valuable results of this is the calling attention to the treatment of pneumonia by quinine, which he believes will, sooner or later, supercede all methods now in vogue. He believes that it will almost

always arrest the disease in the first stage and rapidly cause resolution. Mr. Corbett finds it equally successful with children and adults. He gives adults two grains every two, three or four hours, according to the severity of the case, combined with hydrobromic acid, and adding a few drops of tincture of digitalis in case there is any delirium. If large deposits of urates are found in the urine, he gives some citrate of potassium alternately with the quinine.

He is doubtful whether the quinine acts curatively through the sweating caused by its continuous administration, through its antiseptic power, or both.—*Practitioner*, Oct., '85

Catarrh of the Bladder.—G. A. Noble speaks highly of the effect produced in obstinate cases of catarrh of the bladder by the following combination:

℞. Ext. buchu fl.
Ext. uvæ ursi fl., aa ℥ss.
Ext. gelsemii. ℥i.
M. Sig. Ten to thirty drops five times a day.
—*N. Eng. Med. Mo.*, Dec., '85.

Poison Ivy.—M. E. Walker says that the following has rendered good service in his hands:

℞ Acid carbol. cryst., - - - - - ℥ss.
Sodæ sulphitis, - - - - - - ℥iij.
Aquæ, - - - - - - - - ℥vj.
M. Sig. Apply constantly to parts affected.
—*N. Eng. Med. Mo.*, Dec., '85.

Nux Vomica as an Antidote to Opium.—A. C. Davidson reports two cases of opium poisoning treated with nux vomica.

Two grains of morphia had been given by mistake to a child three years old. She had ceased to breathe when the doctor arrived. He "mixed about ten grains of the solid extract of nux vomica in three or four teaspoonfuls of home-made peach brandy, and proceeded at once to inject the whole of it beneath the skin of the little patient's arms and thighs." In a few minutes tetanic convulsions occurred and lasted for several minutes, after which she fell back quite motionless and relaxed, the respiration and pulse being about normal. A few minutes later she raised herself up and asked for a drink of water. There was nothing further remarkable in the case.

In the second case an unknown quantity of opium had been taken

by an adult woman. The doctor injected thirty-drop doses of tincture of nux vomica at intervals of a half hour until two and a half drams had been injected, with the result of increasing the respirations from three to eight per minute, the pulse was 126, temperature 102.4° F. He then injected a syringeful, over a dram, with the result of producing tetanic convulsions which were repeated six times, the last one being slight. The woman made a good recovery from the effect of opium and the remedy as well.

The editors remark that the doses of nux vomica given in these cases seem hazardous. It is certainly a desperate remedy which should only be so administered in desperate cases.—*Atlanta Medical and Surg. Journ.*, Dec. 1885.

Blistering by Cantharides.—Dr. Squibb calls attention to the necessity of carefully cleansing the surface to which a cantharidal blister is to be applied, in order to gain any satisfactory result from the application. Soap and water should be first used and then dilute acetic acid or vinegar.

The active principles of cantharides are insoluble in water, and therefore a very thin film of moisture will prevent efficient contact of the blistering preparation with the cuticle. The healthy and unhealthy secretions of the skin are apt to so cover it as to prevent this contact, and the pharmacist is not infrequently condemned for supplying an unsatisfactory article, when the only fault is in the mode of using it.—*Ephemeris*, Nov. 1885.

Quinine for Whooping-Cough.—Dr. Sauerhering in the *Deutsche Medicinische Wochenschrift*, Sept. 20. 1885, asserts that in ten years he has rarely failed to cure whooping-cough in fifteen to twenty days by administering quinine in the following manner: The doses for infants are ½ to 1 gr.; children in the second year 1½ gr.; in the third and fourth years 1½ to 2 gr.; in the fifth and sixth 2 to 3 gr.; and so increasing with age till the dose for adults is 7½ gr. These doses of course may be modified according to special conditions of constitution, physical development or other circumstances.

He prescribes ten doses at once in powder form, one to be taken three times daily. These ten powders suffice for three days treatment. Then medication is intermitted for three days. Then ten more powders are ordered followed by another intermission of the same duration. A third course of three days treatment usually

concludes the cure of the case. After the first ten powders the vomiting will usually be found to have ceased, though the frequency of the paroxysms will be only very slightly diminished. Intensity and frequency of paroxysms will be found to be diminished after administration of second series of powders, and the bloating and ecchymosis of the conjunctiva disappear. Even if the symptoms seem to be materially relieved by two series of powders, the third should be administered to complete the cure. He recommends giving the powder in chocolate to disguise the taste—*Therap. Gaz.* Nov. 1885.

Chronic Alcoholism.—Dr. Formad presented at the Philadelphia Pathological Society Nov. 12, 1885, specimens, and read a paper on an analysis of 258 autopsies on drunkards, illustrating the most prominent anatomical lesions of chronic alcoholism. He considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers, or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularity of diet, etc., incident to a state of drunkenness, had much, probably more than the alcohol itself, to do with the production of the lesions, but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which cirrhotic liver with contraction held a prominent place. He had himself at one time considered cirrhosis a very frequent if not necessary concomitant of long continued excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore it was surprising to him to meet in his 250 autopsies with only six cases of cirrhosis of the liver with contraction. In 220 cases the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis with mammillation of the stomach were found in nearly

every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease. At a future meeting he will give a detailed account of the above lesions and a more extensive analysis of the case.

Dr. Tyson could not speak from a systematic observation of a large number of autopsies in the cases of confirmed drinkers, but he remembered distinctly being surprised in several cases by the absence of cirrhosis when he confidently expected to find it.

Dr. Wilson said that Anstie in the article on alcoholism in Reynolds' System of Medicine had called attention to the comparative infrequency of contracted liver in confirmed drinkers. This observer in an extensive out-patient practice in London had seen large numbers of cases of alcoholism, but very few among them presented the physical signs of cirrhotic (contracted) liver. The experience of the staff at Blockley Hospital sustains this view. There many of the patients are soaked with alcohol, but even among those whose death is directly or indirectly due to alcoholic excess, fatty liver is much more common than contracted liver.

Dr. Osler thought the experience of pathologists and morbid anatomists with histories of patients is not of the most satisfactory character, he often having cases to dissect where he knew very little of the history. Before saying these cases were chronic alcoholics, Dr. Formad should present more specific statement about them. His own experience with livers in a large number of autopsies on cases of chronic alcoholism, had led him to divide them into four classes: 1. Those in which the condition of the liver is pretty satisfactory; some of these cases may take alcohol for many years and yet the liver pass muster. 2. Fatty cirrhotic livers, the cirrhosis may not, perhaps, be distinct to the naked eye, but plainly shown by the microscope; this is the largest class. 3. Hobnail livers; these he would say were much more common than in Dr. Formad's series. 4. Hypertrophic cirrhotic livers. The difference between his observations and those of Dr. Formad might possibly be accounted for by a difference in the form of alcoholic beverage taken. He had not observed the special form of kidney described by Dr. Formad. In reply to a question he said, in order of frequency he would place them, fatty cirrhotic, hobnail, hyptrophic, cirrhotic, apparently normal.

Dr. S. Solis Cohen said there were certain theoretical considerations which suggested themselves in this connection. The text-

books teach that the lesions of alcohol are of two kinds, sclerosis and steatosis. It is known that in some organs the fibrous change precedes the fatty one. The latter is the higher grade of degeneration. The subjects of Dr. Formad's autopsies were confirmed whiskey soakers in whom one would expect to find more intensity of degeneration than in those whose use of alcohol, though persistent and excessive, was not so outrageous. Another point which had not been alluded to was the fact that some lesions might result from a local action of the poison upon the tissues, while others might be due to its systemic action. No study of the subject could be complete in which these points were overlooked.

Dr. Randall suggested that the point touched upon by Dr. Osler, the character of alcoholic beverage, might be very important. In Vienna, among beer drinkers, he had found the fatty liver much more common than the cirrhotic, while in England, where much gin is drunk, and he should suppose in Scandinavian countries, where they drink altogether strong spirits, the cirrhotic liver is doubtless comparatively frequent.

Dr. Musser had recently had to go over the records of the Pathological Society, especially in liver diseases, and had found the total experience of different observers the same as Dr. Formad's, and also in those cases cirrhosis was caused not so much by heavy drinking as persistent drinking of spirits, and on an empty stomach.

Hypnone.—MM. Dujardin-Beaumetz and Bardet announce the discovery of a new hypnotic of which the technical name is *phényl-méthyl-acétone, or acétophénon.* The chemical formula of the new drug is $C_6 H_5$, C, CO H_3.

Experiments by Popof and Neucki with regard to its physiological properties show that the chemical is transformed in the organism into carbonic and benzoic acids, and is finally eliminated by the kidneys in the form of hippurates.

Dujardin-Beaumetz and Bardet have made farther experiments and have found it to possess very powerful hypnotic properties. They propose the simpler name hypnone instead of the cumbersome chemical designation.

It seems to them to be more efficient as a hypnotic than paraldehyde and chloral. They administer it mixed with a little glycerine, in gelatine capsules in doses of five to fifteen centigrammes, which causes profound sleep, the hypnotic action being especially marked in insomnia from alcoholism.

The drug was administered for fifteen days to nine patients without any intolerance, though the breath became offensive from the elimination of acetone by the lungs.

Hypodermic injections of five to fifteen drops in young animals caused a marked hypnotic stupor ending in coma or death in five or six hours.

Hypnone is a liquid at ordinary temperatures of 60° to 70° F., crystallizing below this temperature in beautiful white needles. It has a penetrating odor like that of bitter almonds and orange flowers, so intense as to be disagreeable to the patient. Hence, it is better administered in capsules than otherwise.

Cocaine in Whooping Cough.—M. Barbillon gives in *la Revue des Maladies des l'Enfance* the result of M. le Dr. Labric's treatment of whooping cough by painting the isthmus of the fauces, the pharynx, etc., with a five per cent solution of cocaine chlorhydrate. That a hyperexcitability of these parts is an element in the causation of the paroxysms is shown by the fact that examining the fauces or compressing the trachea with the thumb in the substernal groove suffices to provoke them.

The application should be made two to four times daily, according to the severity of the paroxysms. The first application almost always provokes a paroxysm which is seldom reproduced in succeeding applications. The immediate notable effect of the treatment is to reduce the number of paroxysms from fifteen or twenty in twenty-four hours to five or ten. Another advantage is the suppression of the vomiting of food, one of the dangers of this disease.

Cocaine has not appeared to affect the appetite as much as might be expected: eating well, sleeping well and coughing less, all the patients have appeared to do well, as to their general condition, under this treatment. In cases where a serious thoracic complication has supervened the medication was suspended for fear of favoring a stasis of the secretions by a suppression of the paroxysms of coughing. This is the only contraindication noted. The duration of the disease does not seem to be notably shortened; but to sum up the effects; the paroxysms of coughing are diminished in a remarkable degree, the vomiting of food is arrested, and the child is enabled to bear more easily the strain of a long and fatigueing disease.—*Journal de Méd. et de Chirurg. Prat.*, Nov., '85.

Atropia in Acute Coryza.—R. Gray reports having treated a number of cases of acute coryza with atropia in doses of $\frac{1}{120}$ grain and with most happy effect, in relieving the headache, reducing the heat and swelling and diminishing the discharge.—*Med. News*, Dec. 5, 1885.

For Intermittent Fever.—A. H. Merry recommends the following formula for chills and fever, claiming that one lot of the pills is generally sufficient:

℞ Quiniæ sulph., - - - - - grs. xvj.
Calomel., - - - - - - grs. viij.
Res. podophylli, - - - - - gr. ss.
Gelseminin, - - - - - - gr. jss.

M. Ft. pill. no. viij. Take one every hour.—*N. Eng. Med. Mo.* Nov. 1885.

SURGERY.

Ointment for Eczema.—M. Lucas-Championiere recommends the following formula for eczema and intertrigo, foul sweating feet, and the erythema of the buttocks of the new-born:

℞ Acidi borici pulv., - - - - 6 grammes.
Vaseline, - - - - - - 30 "
Balsam of Peru. - - - - 0.50 " M.

Sig. Incorporate the boric acid directly with the vaseline without previously dissolving it in alcohol or glycerine.—*L'Union Med.*, Oct. 29.

Ointment for Hemorrhoids.—J. Wilson recommends the following for painful hemorrhoids.

℞ Morph. sulph., - - - - - - gr. iij.
Ext. stramonii, - - - - - - gr. xxx.
Olei olivæ, - - - - - - ℥i.
Plumbi oxy. carb., - - - - - ℥i.
Cerati adipis, - - - - - - ℥iij.

—*N. Eng. Med. Mo.*, Dec., '85.

Carcinoma Mammæ.—Dr. Musser presented at the Pathological Society of Philadelphia, Nov. 12, 1885, a specimen of carcinoma mammæ, removed from the body of a woman, æt. 75 years. The breast had been injured eight years ago and three years afterward

the tumor was noticed. There was never any pain in the tumor. The lymphatic glands of the axilla were involved. In addition there was a large lipoma of the back of the arm. She had frequent attacks of severe pains in the tibiæ and left parietal bone apparently due to periostitis and not to any secondary growth. There was no syphilitic history.

Nitrous Oxide Gas in Examination of Fractures.—Dr. J. M. Barton commends to the profession the use of nitrous oxide gas as an anesthetic in the examination of fractures. Its special advantage is the avoidance of the period of excitement that accompanies the administration of ether, and during which the patient is so likely to further injure the fractured limb.

While the anesthetic is being administered the injured limb is fully exposed and held by the surgeon. Before unconsciousness is complete, the limb becomes limp and all the muscles are relaxed. The examination may now be commenced, though not wholly free from pain. This period, that of complete unconsciousness, and the secondary period of muscular relaxation, together amount to about four minutes, which he has found abundant time to examine almost any fracture.

The portable cylinders of condensed gas and the inhaling apparatus, furnished at dental depots, render the use of the gas for examinations or for minor surgical operations much more readily available than formerly.—*Med. and Sur. Reporter*, Nov. 7, 1885.

Mastoid Disease.—Dr. Fussell presented at the Pathological Society of Philadelphia, Nov. 12, 1885, specimens which are of special interest in connection with the paper of Dr. C. A. Todd, published in January Courier. The patient was a male, æt. 25 years. Never had scarlet fever. Since vaccination at the age of 5 years, has had occasional attacks of suppuration of the middle ear. General health was good. When first seen by Dr. F., July 14, for several weeks he had had earache, with one slight chill. When seen hearing was very poor, membrana tympani opaque, swelling and redness over left mastoid process, and temperature elevated. His general condition grew worse, and an incision was made over the mastoid process, but it failed to find pus. On extending this incision a few days afterward pus flowed freely, and he was much relieved. He afterwards grew worse, fell into a typhoid condition, and died July 24. Before death blood oozed freely

from the cutaneous surface. At the autopsy the mastoid cells were found filled with pus; in the inner half of the process was a large irregular cavity filled with a pultaceous mass of necrosed bone; this communicated with the middle ear. The walls of the lateral sinus were thickened, easily detached from the bone, and the seat of a purulent inflammation. The sinus contained no thrombus. The meninges over this part were discolored though not inflamed, but there was a patch of inflammation over the anterior edge of the left lobe of the cerebellum. Brain substance was normal. Remaining organs were not remarkable, except the right lung which contained in its apex two small abscesses. From the condition of the pains the reporter thought there had been an actual admixture of pus with the blood.

Treatment of Dysphagia.—J. F. Bullar recommends the use of a tube passed through the nose into the stomach in the treatment of cases where there is imperfect or difficult swallowing, as in cases of tracheotomy, diphtheritic paralysis, meningitis, etc. Having tried it in several cases of these troubles, he asserts that even with a small child there was commonly little, if any, struggling or apparent discomfort in introducing the tube. The children often hardly woke while the tube was passed, and fell asleep immediately after it was withdrawn; and even when they resisted the passage of the tube, it was invariably found that they had more rest and were less exhausted than when constantly troubled to take food from the spoon.—*Practitioner*, Oct., 1885.

Intubation of the Larynx.—Dr. F. E. Waxham gives to Dr. O. O'Dwyer, of New York, credit for originating the plan of treating croup by the introduction of a tube through the larynx instead of performing tracheotomy. The forms of tube which he now uses are an improvement over those first designed. The method of introducing is thus described:

Intubation is performed by having the child held firmly in a sitting posture on the lap of the nurse, with the hands at the side, while an assistant holds the head firmly and somewhat backward. The gag is introduced between the teeth, well back in the left side of the mouth, while the assistant holds it with one hand. The tube, armed with a silk bridle, well waxed, is now secured to the introducing instrument. The right hand manipulates the instrument, while the index finger of the left hand is introduced into the mouth,

guiding the tube safely and quickly over the epiglottis, and into the larynx. As the introducing instrument is removed, the tip of the finger presses upon the head of the tube and forces it down into the larynx. We now make sure that the tube is in proper position, which will be indicated by easier breathing, by the tube remaining stationary, and by coughing on attempting to swallow water. The bridle of silk is very apt to cause spasmodic coughing and is usually removed. The gag is now reintroduced, the forefinger of the left hand is again introduced over the epiglottis until it touches the head of the tube when the silk is quickly withdrawn."

Practice on the cadaver is necessary to enable one to perform this operation with facility, but Dr. Waxham thinks that with this practice anyone who possesses the courage and skill necessary to perform tracheotomy should perform this operation of intubation without serious difficulty.—*Chic. Med. Jour. and Ex.*, Nov. 25.

Croup—Tracheotomy.—Dr. H. R. Wharton presented to the Philadelphia Pathological Society, Dec. 10, 1885, a larynx and trachea from a case of membranous croup, in which tracheotomy had been performed. The patient, a girl, æt. 4 years, had had croup for some days when increasing dyspnea necessitated tracheotomy. After a period of relief she died suddenly. Post-mortem examination showed a complete membranous cylindrical case of the larynx and trachea extending into the larger bronchi. There was also an ante-mortem heart clot. The exhibitor remarked that the points of greatest interest to him were the great relief following the operation, although there was much membrane below point of opening, showing that the dyspnœa was due, to a certain extent, to laryngeal spasm, the extreme smallness of the trachea, the extensive deposit of membrane, and the fact that the tracheal tube might easily have been pushed between the membranes and the inner surface of the trachea.

Dr. Carl Seiler thought that in these cases of croup, as well as in cases of foreign body in the larynx, it was a reflex spasm, rather than the direct obstruction that caused the dyspnœa. He had found that it is not inspiration that is interfered with, but expiration. This would lead to the conclusion that the interference is due to spasm. Now if it is principally spasm, intubation of the larynx might in some cases supplant tracheotomy: it might, at least, be tried before tracheotomy is resorted to.

Dr. Wharton thought that in movable foreign bodies it was the expiration that was most interfered with, while in an impaced foreign body, or in an exudation, it was the inspiration; this he had been accustomed to regard as a diagnostic point.

OBSTETRICS AND GYNECOLOGY.

Prevention of Mammary Abscess.—Arthur W. Edis states that in a long series of cases lasting over many years he has had uniform success in preventing mammary abscess in cases where lactation was suspended for any cause by adopting the practice of applying uniform firm compression of the breasts by means of a rib bandage or the application of a towel or diaper across the chest, the breasts being brought well forward toward the sternum. The only precaution necessary is to apply the bandage on the day following delivery, before the breasts have filled, and to see that the whole gland is included.

It is well, he says, to elevate the shoulders more than usual and to avoid a heavy and warm covering of the upper part of the chest. The amount of fluid ingested should be restricted for the first few days, and the bowels should be acted upon. Some little inconvenience, a feeling of tightness or burning pain may be experienced, but if the pressure is maintained no harm results and in a few days, the turgescence subsides and the trouble is at an end.—*Brit. Med. Jour.* Nov. 7, 1885.

Young Parents.—W. H. Allen reports a case in which a girl thirteen years and six months old bore a nine pound baby, the father being a boy fourteen years old.—*Brit. Med. Jour.* Nov. 14, 1885.

Diminutive Inant.—S. J. Scott reports delivering a fully developed woman in the eighth month of a child weighing only two pounds and a half. At the time of writing the infant was alive and doing well.—*Brit. Med. Jour.* Nov. 14, 1885.

A Child Without Arms.—E. W. Davis reports a case in which a child was born with a remarkable deformity. On the left side there is no sign whatever of an arm. On the right side there is a small arm one inch long. At the shoulder is an imperfect articulation. At the elbow there is a perfect joint, and on the end

there are three separate and distinct nails. There was no sign of hand or fingers.—*Med. Herald* Nov. 1885.

Fetus Papyraceus.—Dr. Musser presented at the Pathological Society of Philadelphia, Nov. 12, 1885, a specimen of fetus papyraceus. The mother was delivered in the morning of a mature living child and in the evening of this foetus. It is apparently of the fifth month of pregnancy and with the exception of shriveling and paling of the skin is quite normal. The cord is thin and soft, its length unknown. The placenta is thin, flat, compact and whitish yellow, apparently having undergone complete fatty degenerations.

New York Cancer Hospital.—The first annual report of this institution has appeared. The meeting at which were taken the first steps toward the establishment of this hospital was held February 7, 1884, at the residence of Mrs. General Cullum. Very munificent gifts were volunteered, a most desirable site was secured, facing the west side of Central Park, plans were prepared and accepted, and May 17, '84, the corner-stone was laid of the building which is to be devoted to women, and the money for erecting which has been contributed by Mr. J. J. Astor.

Up to May 1, '85, contributions had been made to the amount of $314,048.07. Of this, $200,000 was a single donation from Mr. J. J. Astor. The wealthy people of New York have taken hold of this hospital with an interest and enthusiasm which ensure its success, and offer a guarantee that not only will the best that can now be done for many patients suffering from that terrible malady be done, but also that the eminent physicians and surgeons of the staff will there make observations and studies upon the subject, which will result in better treatment and more efficient relief.

The plan of the building is not only unique and beautiful in exterior, but admirable in the convenience of its interior arrangements. The circular form for the wards has some decided advantages.

The Florida Medical and Surgical Journal.—This new journal is well prepared, both as to matter and manner. The original articles are good and the journal is a credit to its editors. If the present standard is maintained it should certainly be well supported.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, December 1, 1885.

Hysterectomy.

Dr. Carson presented the ovaries and uterine appendages removed from a case two days before. The patient was brought from Illinois by a physician who stated that he had been attending upon her for years and that she had been a very great sufferer. She gave the following history: That from the time of her first menstruation, at the age of 14, she had had pains and suffering during the periods, but had always been regular up to the time of the birth of her first child, or at least until she first became pregnant. After the birth of her child she suffered more pain in the pelvic region and became subject to hysterical attacks. The pain had increased in severity from that time until the time of the operation,or until her last menstrual epoch two weeks ago. Everything had been tried; consultations had been had and different plans of treatment recommended, but without success. Her parents and friends had thought of placing her in an asylum. Twice, the doctor says, she was irregular for quite a time; she says she does not recollect any time that she was irregular except that the periods would not come for six weeks and would then last two weeks, increasing in the length of the periods and also in the severity of the pain with each epoch. She entered the hospital last week, and on Sunday they operated, removing the ovaries and appendages. One ovary is a little enlarged and the other very decidedly so. The left ovary was attached quite closely to the pelvic wall; in removing it Dr. Carson barely cut the entire ovary out. The interesting feature of the case was that two days after operation, the day of making the report, the woman became unwell and none of the usual symptoms accompanied the appearance of the flow. Whether this flow could be considered as a regular menstrual flow or not he was not prepared to say. But most of the patients upon whom he

and Dr. Gregory had operated for ovariotomy or for the removal of the ovaries and appendages, after the third or fourth day became unwell and had a flow corresponding in every respect to the menstrual flow. In the morning before the flow commenced she suffered some pain for a while, but upon the establishment of the discharge it disappeared altogether. Since the operation the symptoms had all been very favorable. The temperature at one time arose to 100⅘° F., and the pulse to 96. These specimens were removed through an incision about two and a half inches in length.

The uterus was normal. In the first rectal examination of the uterus made by the fingers, he felt very distinctly the right ovary, which was made out to be slightly enlarged and had a feel of being flattened, which, however, did not appear in the specimen. He could not find the left ovary through the vagina or through the rectum, which was accounted for on opening the abdomen by the position of the ovary at that time. The right ovary upon the posterior surface of the uterus was irregular in feel and very sensitive to the touch. When he introduced his fingers into the abdominal cavity and examined the uterus in that way, it was perfectly normal to the feel, and that irregular surface that he felt through the rectum was not to be found. How to account for it he did not know. There was no thickening of the wall of the rectum nor any way to account for that irregular feeling. The pain, while it was very severe, was not what he would expect to have from pressure upon the ovary. She said it didn't nauseate her at all but was exquisitely sensitive.

Dr. Todd asked if he understood Dr. Carson to say that cases of ovariotomy menstruate afterward?

Dr. Carson said that most of them do.

Dr. Todd asked if they continue to menstruate regularly every month.

Dr. Carson said there was one case of a young woman in Dr. Gregory's practice which had been mentioned here before, in which the ovaries were removed on account of tumors, and this woman menstruated regularly from the time of the operation up to the last accounts which was only a few months ago. In another case, at Hermann, Missouri, they removed both ovaries and apparently everything connected with them and the woman menstruated regularly every month up to the time of her death, a year and a half or two years after the operation. The specimen presents the appearance of having been completely removed.

Dr. Grindon mentioned that during the time he served at the Female Hospital there was a woman there who had been operated on at two different times and both ovaries removed, and that the woman continued to menstruate up to the last that they heard from her, about a year ago.

Dr. Carson said that Dr. Engelmann had reported a case of a woman who not only menstruated but became pregnant after the removal of both ovaries. He thought he had removed both ovaries entire, and was very much surprised at finding that the woman menstruated and much more surprised when she became pregnant. It has been claimed that there must be portions of the ovaries left and also that the flow after ovariotomy is not a true menstrual flow. In all the cases they had had the flow presented the appearance and all the characteristics of the regular menstrual flow. The patients themselves have said that they could not recognize any difference whatever.

Dr. Homan asked if there might not be supernumerary ovaries.

Dr. Carson said there might be, but here the tubes and ovaries were entirely removed, and he didn't know how blood could come from supernumerary ovaries in that case.

Dr. Homan referred more particularly to pregnancies following the removal of the ovaries.

Dr. Dean said that sometimes a Graafian follicle was left: that is one of the theories upon which the matter is explained.

Salivary Calculi.

Dr. Prewitt presented a specimen and said. That during the last year or two the patient from whom this was removed has suffered with a swelling under the right jaw. She once started for his office while this swelling was present, but before reaching there it had disappeared and she didn't come. A few days since he was sent for to see her and found quite a swelling under the right maxilla. There was some inflammation and the woman had fever and seemed to be quite sick from it. He was a little in doubt whether it was a lymphatic gland that had inflamed or the submaxillary gland. However, she called his attention to the fact that there was something under the tongue which annoyed her, and on looking there he found the opening into Wharton's duct considerably dilated, and distended by something that looked almost like coagulated milk only firmer than that. He thought at first that it was calcareous

matter not thoroughly solidified. In scooping it out with a curette, however, he could detect no grittiness and immediately suspected there was a calculus in the duct. A probe passed down satisfied him that he could indistinctly feel the calculus some distance down the duct. He then passed his finger into the mouth and under the tongue near the origin of the duct, back opposite the second molar tooth, he detected what he was satisfied was a calculus. Two days before this meeting he removed three calculi. The first one he removed had a facet upon it, whence he inferred that there must be another. With a small curette he took out the second one and, finding upon that two facets, was satisfied that there was still a third and removed that, making altogether a somewhat ovoid mass. He had removed calculi of the same sort from the duct before but had always found them right near the inlet, which was not the case in this instance. Professor Gross speaks of one which he removed which was about one-eighth of an inch in size. There was swelling in the mouth, the gland, etc., and he didn't make a diagnosis until the calculus had ulcerated through and was picked out. This patient was only twenty-six years old and she was comparatively a young woman to have such a calculus. He had removed two others from persons as young as this patient.

Dr. Bryson asked how to account for the swelling and obstruction of the duct.

Dr. Prewitt said the calculus acted as a valve. And that being removed the swelling subsided.

Dr. Bryson said that about two months ago there came to his office a gentlemen who complained that he felt something abnormal on the left side of his mouth. The tonsil was found to contain a cavity, and on pushing in a probe he felt a calculus. He had little difficulty in removing it. This calculus was somewhat flattened and about the size of a pea. It protruded towards the opening and was quite sharp. It was made up of oxalate of lime principally.

Dr. Bryson read a paper (vid. p. 113)

Tubercular Inflammation of the Testicles.

Dr. Dean didn't think it quite proper to speak of cheesy inflammation, nor of calcareous or fatty inflammations. We have fatty degeneration following inflammation in which the tissues may be largely made up of fat and going into fatty degeneration. Although we have caseous degeneration, it is commonly called cheesy necrosis, that is, it has undergone such changes as to produce a necrosis.

He was surprised that Dr. Bryson laid no stress upon cheesy necrosis as connected with syphilis. He believed the general opinion of pathologists with reference to cheesy necrosis was that it always depends either upon tuberculosis or syphilis. He had presented a case to the Medical Society at its last meeting, in which there was in the mesentery a tumor two inches in diameter, perfectly smooth covered with peritoneal covering. On opening this it was found to contain two ounces of what we call cheesy necrosis. There was no sign to be found anywhere of material with any structure. There were of course no globules or crystals. Upon opening the sac and taking a spatula and dipping it in and turning it as if in the wide mouth of a bottle, the contents would then flow pretty readily. But the next morning on opening the bottle and putting the spatula into this material it would leave an impression just as if it were butter or lard. An assistant had made an examination with the microscope and said there were no tubercle bacilli present.

In the liver there were four or five depressed and irregular cicatrices upon the surface. Upon making a section through these cicatrices and the liver substance, it looked red like flesh, but with white spots like connective tissue trabeculæ running across and forming network; no structure could be found other than fibrous. Some one stated that this case must be of tubercular or syphilitic origin, but the records do not disclose either. The woman's lungs were perfectly free from disease. There appeared never to have been any adhesions. Her husband said she had two children, one abont 14 years and the other 11. The oldest is a remarkably fine specimen of health and vigor. She had never shown any signs of any disease at all except that from which she died, fibro-myoma of the uterus. Her husband had never had any disease; he had been a perfectly cleanly man. Dr. Dean was satified that there was no syphilis or tuberculosis in the history of this case. He regarded the bodies found in the liver as simply old abscesses which had gone on to complete destruction and necrosis of tissue, and had filled up with granulation tissue.

Dr. Frank Glasgow asked if tuberculosis of the kidney is not ordinarily bilateral. If it had not been for the microscopical examination, the appearance of the kidney would incline him to say that the trouble was due to a pyelo-nephritis. The smooth, velvety feel of the interior of the cavity gave the feel of abscess cavities. They were not studded with small elevations such as we find in tu-

bercle. And then again, the surface of the kidney was smooth and showed no tubercles. There was one place which might be a small abscess near the surface, a small collection of pus in some of the canaliculi possibly, or maybe in the stroma of the kidney itself. But the general appearance of the kidney was not that of a tuberlus kidney, and the other kidney being enlarged would confirm that view.

Dr. Bryson said he would acknowledge the justice of Dr. Dean's remarks. But there are inflammations and inflammations. Every surgeon sees inflammations that result in the formation of floccular pus and what is generally called cheesy material, the distinction being rather macroscopical than microscopical. In making a diagnosis we are bound to give some significance or weight to that fact, because it certainly does alter the prognosis. The object of the paper was simply to present some points that would convey his idea about the clinical nature of inflammation indicating the picture it presents as a simple orchitis the result of urethritis either gonorrheal or simple. It commences sometimes without any urethritis, and, as in the case of the boy related, leaves no trace behind. Whether this inflammation is called cheesy or tubercular or whatever else—some call it crude tuberculosis, and one of my friends calls it scrofulous matter,—but whatever it is called, certainly it does behave differently from those that do not result in that way.

In regard to Dr. Glasgow's remark he said that he considered this a pyelo-nephritis; but pyelo-nephritis is a rather general term; and it becomes necessary, if we are going to make any estimate as to the final outcome of the trouble and the chances of its destruction of the patient's life sooner or later, or as to its being essentially an acute or chronic disease, to say what sort of pyelo-nephritis this is. Of course we cannot always do this by any means; in fact it is probably in very few cases that we can. In this case it seemed perfectly plain. It may be that the diagnosis was only a guess; but if so, it certainly was a good one; because the diagnosis was not made simply pyelo-nephritis, but cheesy pyelo-nephritis and that character of inflammation that we call cheesy or tubercular. By cheesy inflammation he understands an inflammation resulting in cheesy infiltration of thetissues. Some physicians think that it commences as a plain tubercular trouble and winds up as a cheesy one. The expression was unquestionably a very vague one. In the case from which came

the specimen presented, the trouble did commence as this peculiar form of inflammation of the left testicle, if we are going to give any attention whatever to the clinical symptoms. He didn't pretend that in all cases the disease can be assigned to one or other organ. But in the three cases reported the disease commenced in the testis.

The boy was remarkably intelligent, and though he didn't particularly observe himself, he said that as far as he could remember, the condition of the epididymis which was found when he came to the doctor had existed all his life, or at any rate as long as he could remember. The physician who had delivered him said that the child screamed for days and days after his birth, and had great difficulty in passing urine, and evidently there was some trouble about the epididymis from the birth of the child, that had remained perfectly queiscent. Dr. Bryson remembered very well examining the boy one day in his office when Dr. Hodgen came in, and he got him to examine the boy. He said he didn't see anything of the nature of the ailment, but he said he couldn't see anything that would do any good but constitutional treatment.

Dr. Bryson had examined that boy's urine repeatedly and never found a pus corpuscle in it. The organs were rudimentary. His penis was not larger when first examined than a boy's five or six years of age. He never had any erection. The doctor had to explain to him what an erection was, as he did not know anything about it, but he knew he was different from other boys of his age, and about that alone he was concerned. As the sexual evolution appeared the disease became active, and the doctor examined repeatedly to see whether he could make out any evidence of this peculiar inflammation in the cord but could find none. The cord was normal to the feel. The disease certainly was an inflammation as was evident on examination of the specimen in one of the vesico-prostatic veins. As the surrounding substance was cut away the cheesy mass was squeezed out. The inflammation is peculiar, and the final outcome in the cases affected by it is different from what it is in the simple inflammation.

Dr. Prewitt said he had been struck with the fact that Dr. Bryson had met with so many cases of that kind where there was no pulmonary tuberculosis. Van Buren and Keyes say that it is a very rare thing to find a primary affection of this kind. It is almost invariably secondary. But the husband of the woman from

whom he removed the calculi just exhibited, had been afflicted with a tubercular testicle for several years before he was married. He was under Dr. Prewitt's care for this trouble. He subsequently married and, as expected, has had no children. Another young gentleman from Illinois had primary tuberculosis of the epididymis without any pulmonary trouble so far as Dr. Prewitt had been able to find out. He had been somewhat surprised that the first patient referred to has not manifested other symptoms. He has not had any extension of the trouble during five years. A case was now under his care of tubercular testicle with disease involving the prostrate gland, cystitis, etc.

He had seen enlargement of the epididymis very different from the epididymitis resulting from gonorrhea or inflammation of the prostatic portion of the urethra. There you have a somewhat flattened mass that involves the epididymis proper, whereas in tubercular epididymitis so-called there are hard nodules. In the case of the man first referred to these beady nodules are found in the vas deferens.

Dr. Bryson asked if they were not in the veins.

Dr. Prewitt said he thought they were in the vas deferens. In the other young man referred to these nodules extended also to the vas deferens. This nodulated character is a striking feature of these cases of tubercular epididymitis. One might almost say pathognomonic. It differs widely from ordinary inflammation. From Dr. Bryson's observations we should be led to infer that tubercular trouble of the genito-urinary tract is much more frequently a primary disease than we had been led to suppose before.

Dr. Leete asked if observation had been made by Dr. Bryson or Dr. Prewitt in these cases whether these patients have at any time suffered irritation or metastasis of the testicle, also whether these tubercular testicles with cheesy degeneration have, as a rule, been larger or smaller than ordinary.

Dr. Bryson said that as a rule, the tubercular testicle is very decidedly larger. The case of the boy was one of epididymitis in which the testicle seemed to be sound except that it was in its rudimentary stage.

Dr. Leete said that he had raised this question simply for the reason that in a considerable percentage of the cases of metastasis of the testicle, so far as he had been able to observe, it had been the rule for the testicle to be permanently enlarged, and some-

times become a very troublesome organ as the result. It has occurred to him that it was among the possibilities that, as a result of such continued irritation and inflammation, there might be a degeneration characterized as tuberculosis. It had certainly been for a long time regarded that tuberculosis, as we ordinarily use the term pulmonary tuberculosis, is a disease of the entire system and not purely a local affection.

Dr. Mudd said his attention was called to this subject about ten years ago by a man who came here from Quincy, entered the hospital with prostatic irritation, and remained for about two months. When he came there was no evidence of any trouble in the lungs. The trouble of the bladder was very marked, and was evidently prostatic inflammation. He was here only a short time when there appeared some induration along the vas deferens and in the testicle. When he entered the hospital he was rather a healthy looking man. He died, and the lungs and the whole urinary tract from the testicle to the kidney showed the tubercular infiltration. A case came under observation about eight years ago of a man who lived about fifteen miles away, a very well formed, healthy looking individual, of good parentage, of virtuous habits, one of a number of children who were all healthy. An epididymitis and then suppuration developed slowly but persistently until it was necessary to remove the testicle. He recovered from that, and three or four years after he came with the other testicle almost gone from suppurative ulceration. He was at the time of the first trouble about twenty years of age; he is now probably twenty-eight, and so far as the doctor knows, he has had no evidence of trouble in the lungs. There was no inflammation of the vas deferens or along the cord in that case. In a case that came under observation, perhaps a year ago, the trouble commenced in the right lobe of the prostate. There was a little irregularity, and then there was developed a cheesy degeneration of the testicle which was removed. At the time of its removal there was no evidence of disturbance of the cord, and the man has improved very materially in his health since. He was a middle aged man. The last case spoken of seemed to confirm the statement of Dr. Bryson that this expression of tubercular trouble was not infrequently a local one, and did not become general so rapidly as does tubercular infiltration of the lungs. Both patients improved after the removal of the testicle, after the removal of the source of primary infection.

Dr. Tuholske didn't think that it would be of much interest for him to multiply the class of cases mentioned, which, though comparatively rare, occur in the practice of most gentlemen who see cases of urinary disease. But the important point he thought, was to get at the actual condition of the testes and the adjacent parts involved. As a a rule we see such patients with an enlarged epididymis. When the patient comes for an examination, as a rule the enlargement has existed for sometime, and has not been painful. Sometimes we see it very early and there is a peculiar soft consistency. Now what has happened in the epididymis. The inflammatory condition that occurs there is what we are in the habit of calling scrofulous. It is slow in its development, and we see the formation of tissue without destruction. We see a patient with caries of the spine with a peculiar inflammatory condition of the vertebræ and we find the destruction with new formation without the formation of pus. There is the production of granulation tissue of a very ephemeval existence. There is in the cases the production of granulation tissue before the occurrence of pus. Ordinarily we see the formation of pus and then afterwards the granulation tissue forms. But in these cases there is granulation tissue in the beginning, and those who have carefully examined find that the tuberculosis differs in no way from what we call specific tuberculosis in this scrofulous inflammation. The trouble existing in the globus major may remain stationary and not undergo degeneration. But still there remains some of this specific tubercle, not active but still there, and if the inflammation has been such as to limit the territory forming it there is a protective capsule around it. Now what change occurs which elaborates those specific tubercle germs that differ in nothing from those which occur in scrofula is not known. The trouble may remain perfectly quiet for years, just as tuberculosis of the lungs may remain quiescent for years. We find that along the routes of the spermatic cord it is developed as tuberculosis, and it goes on to the prostrate, and on to the base of the bladder and follows the true anatomical route to the kidneys and produces its mischief there on both sides. And when once it reaches the kidneys, it has been demonstrated to be the fact that the tubercles absolutely may pass by the venous circulation into the heart, and from the heart into the lungs, and may set up in one or both of the lungs that peculiar specific trouble that may occupy years in developing in the globus

major of the epididymis. It may remain in the globus major for years without doing any mischief, but if some irritation takes place and the tubercle is removed from where it is developed, it grows and flourishes, and will be followed by the peculiar train of symptoms, which we call first local tuberculosis of the prostate, of the vesical neck, of the base of the bladder, involving the kidneys and, finally, will be followed by general tuberculosis extending in the direction of the lungs, not because they are specially predisposed to it, but because it gets there by the anatomical route. Now the globus major of the epididymis is attacked more frequently, and that fact will explain why not all such cases are followed by general tuberculosis. Tubercle may remain in the globus major without being disturbed for years, and it requires some special dislodging cause to make it grow and spread along the anatomical route until it is followed by general tuberculosis. He had seen such cases of enlarged epididymis in men apparently healthy, and had watched them for years and seen nothing happen. But he had seen some where there was a breaking down of the globus major, inflammatory trouble of the cord, and breaking down, and the patients finally die of consumption. Just as we may have a scrofulous enlargement of lymphatic glands of the neck which may lie dormant from the period of childhood to adolescence; and when some exciting cause occurs tuberculosis is developed in the adjacent tissue of the lungs. He believes whenever we have a testicle enlarged by tuberculosis, it is best that it should be removed.

Dr. Bryson said that in reference to the involvement of the lungs finally, it would be remembered that he presented a specimen some two years ago before this Society of what he called cheesy or tubercular inflammation, commencing in the testicle. The patient was a distinguished civil engineer. The trouble commenced nine years before his death in one of the testicles, which atrophied to a considerable extent. There was a little weeping fistulous opening. A year after the first testicle was affected, the other was involved in the same diseased process. Still there were no vesical symptoms, no urinary symptoms. Finally, a year after the last testicle had gone through that process, the patient noticed vesical symptoms which were evidentally indicative of prostatic trouble because he had pain at the end of micturition when the bladder was empty. He was seen by three or four surgeons; and three or four times he was sounded for stone, causing bleeding and pain, but no stone was

found. When he was seen by Dr. Bryson, it was very plain that the kidney was involved as well. There was also some evidence of slight inflammatory trouble of the bowels. After the patient died, a *post-mortem* was made and the lungs were examined, and there was found to be general miliary tnberculosis of the peritoneum and to a considerable extent of the bowel. There was also evidence of a tubercular inflammation of the rectum which was a surprise, for there were no rectal symptoms; he had no rectal tenesmus. In this case the lungs were not affected; they were sound.

In the case alluded to in the paper, in which Dr. Carson made a section into the deep urethra, the lungs were examined thoroughly and were not found to be involved. Finally, before the patient left the hospital, there was a laryngitis which was thought to be tubercular. In regard to the cases which form the basis of the paper there was no *post-mortem* examination made. He had simply examined the chest during life for evidence of disease and generally found none. In only two cases was tubercular disease of the lungs found. He had tried to make it clear in the beginning that he did not deny that there was general miliary tuberculosis, of the kidneys especially. In regard to the question of treatment, particularly the surgical treatment, he believed with Dr. Tuholske that the opinion is very widely held by all now, that in case of a distinctly cheesy inflammation of epididymis or testicle the organ should be removed. In the case presented to the Society about a year ago, thore were no evidence to the eye of tubercular disease or cheesy inflammation or miliary tuberculosis in one of those kidneys; it was considerably hypertrophied, and the other was virtually destroyed by the tuberculosis. There is one point in connection with the disease which led him to believe it to be a pyelo-nephritis on one side. The patient for several hours would pass perfectly clear urine. In the case related here to-night, from which the specimen was taken, the patient for five or six hours passed nothing but very clear urine; at another time there was a dragging sensation of one side, and the urine which was passed threw down quite a sediment which would relieve him of the pain on that side, and this led him to believe that one kidney was seriously affected.

FOREIGN CORRESPONDENCE.

LONDON LETTER.

Death of King Alphonso.—Medicine in Spain.—Ferran's Inoculations.—Hydrophobia.—Testimonial to M. Pasteur.—Tendon Reflex.—Diphtheritic Paralysis.—Trained Nurses.—Harveian Lectures.—Peripheral Neuritis.—Hospital Abuse.—Provident Dispensaries.—Discontinuance of The Medical Times and Gazette.

London, Jan., 1886.

A terrible calamity has fallen upon Spain by the death of the young king, Alphonso. Several accounts have been given of his fatal illness. It was known that he was suffering from dysenteric diarrhea, but two days before he died he was seized with difficulty of breathing, and his throat and mouth were found to be inflamed and ulcerated. His physicians appear to have considered it diphtheria and entirely disconnected with his other complaint; but possibly the appearance of the mouth and throat were only due to the aphthous condition of those parts which so often accompany the last stages of dysentery. In a dirty, ill drained and generally unsanitary country like Spain, it would not be surprising to find two diseases such as dysentery and diphtheria attacking the same individual.

It is well known that in Spain medical knowledge is quite half a century behind that of the most enlightened countries of Europe. Most strange accounts have reached this country of the way their typhoid fever patients are fed, with the result, which does not seem to astonish the Spanish physicians, that they all die. The queen is said to have an Austrian physician in attendance upon her, and most probably he is possessed of some medical knowledge. Formerly, several London physicians and surgeons held posts at the courts of Madrid and Lisbon as personal attendants upon mem-

bers of the Royal Families, but no such appointments have been made in recent years.

The greatest difficulties were thrown in the way of the French and English physicians who were sent to investigate the reported efficacy of inoculation for the prevention of cholera, which was said to have been discovered by Prof. Ferran. The most unscientific and anti-hygienic conditions were found to surround the so-called laboratory in which he worked, and the whole system has been thoroughly discredited and found to be utterly worthless.

During the past year we have suffered from a regular epidemic of hydrophobia. The greatest number of cases have occurred in the neighborhood of the metropolis. The number of deaths exceeds the actual number that has taken place from this cause in any one year since 1867. A grand opportunity is afforded for confirming the observations of M. Pasteur. It has been found necessary to issue the most stringent regulations as to dogs being allowed at large. All dogs not wearing a muzzle of a regulation pattern, or not being led by the owner, will be seized by the police, and if not claimed within three days, will be sold or destroyed. It is extraordinary how rabies becomes endemic in certain countries. No doubt stringent police regulations, if enforced for a sufficient time, would effectually stamp out the disease. No case of hydrophobia has ever been known to occur in New Zealand, and it is said to be due to the fact that no infected dog has ever been allowed to be imported into the colony. All dogs arriving at New Zealand ports are subject to a three weeks' quarantine, and if found in any way diseased they are destroyed.

The town council of Havre has voted a sum of 100 francs to M. Pasteur, as a mark of gratitude for his services and as a contribution towards the expenses of his philanthropic investigations. His investigations have been directed recently towards examining the causes which influence the spread of hydrophobia, and whether immunity can be secured by inoculation with attenuated virus.

In the recent discussion raised by Dr. Gowers, before the Medical Society of London upon the "diagnostic value of the so-called tendon-reflexes," he expressed as his opinion that the "knee-jerk" is, due simply to muscular irritability, and that the irritability is due to a tonic condition of the muscle which is associated with slight tension. Some years ago Dr. Gowers published some calculations and measurements of time to prove that the knee jerk was not a re-

flex act; that the time elapsing between a tap on the patella tendon and the subsequent contraction of the extensor muscles of the thigh was not of sufficient duration for the contraction to be due to reflex action. He does not deny that reflex action of this kind does occasionally take place and sometimes in cases of tabes dorsalis, in which what he considers the true knee-jerk is absent. This reflex contraction of the extensor muscles of the thigh takes place after a much longer interval after a stimulus has been applied to the knee or patella tendon. The stimulus is not necessarily a tap, but a prick with a pin will produce the true reflex phenomenon. In the early stages of locomotor ataxy, Dr. Gowers has shown that the skin around the knee is often hyper-sensitive. He considers that one of the earliest signs of diphtheritic paralysis may be the absence of "knee-jerk," and this phenomenon may be present long before any paresis of the soft palate or other muscles takes place. Dr. Gowers doubts the occurrence of true ankle clonus in hysterical paraplegia.

A recent number of *The Lancet* contains a very pithy little paragraph upon "Trained Nurses," which supports the view I have so often given expression to in these letters. The *Lancet* says: "We have more than once pointed out in these columns there is a class of "trained nurses" which must be regarded as one specially developed or evolved by the practical ignorance of detail in respect to the needs of the sick chamber, which necessarily characterizes *physicians* who have not been *general practitioners*, and medical practitioners generally who have obtained all the bedside knowledge they possess at hospitals without being inducted personally to their work as attendants on private families. We hold, and do not hesitate to affirm, that attendance on the practice of a hospital is not in itself a sufficient preparation for the treatment of patients in their homes. What nurses are trained to do could be as well done by ordinary servants if the the practitioner would and could give precise instructions as to details. As matters now stand the sick are often at the mercy of a class of women who have been taught a system of nursing not good in itself, and wholly unsuited to the needs of the majority of patients, and who are puffed up with a little knowledge to an extent dangerous to the poor sick folk over whom they usurp and exercise an authority which is irrational and mischievous. They are happy who have wives, sisters, or even servants, to tend them in their hour of helplessness, and who are not

'under the care of a nurse who stands between doctor and patient, to the injury of both."

The annual Harveian Lectures were delivered this year before the Harveian Society by Dr. Buzzard, upon "Some Forms of Paralysis Dependent upon Peripheral Neuritis." Dr. Buzzard would have us believe that peripheral neuritis is a much more common affection than is generally supposed. The most potent agent in producing this condition of the peripheral nerves, Dr. Buzzard thinks, is alcohol. The symptoms which would help to form a differential diagnosis between peripheral paralysis and those due to central or spinal trouble: sensation impaired to an equal extent as motion; pain in the affected limbs; retained sensibility for heat and cold; the sphincters not affected; impaired electrical excitability to both currents; wasting and trophic changes in the skin; with the absence of all those symptoms known to be characteristic of cerebral or spinal lesions. These cases of peripheral neuritis may be local, that is, confined to one limb; or they may be multiple, affecting several limbs, or the paralysis may become rapidly almost universal. These latter cases are, of course, the most difficult to distinguish from central nervous disease. The nerves undergo a degenerative atrophy, as is found to be the case with the distal portion of a nerve which has been severed by accident. A gouty diathesis is frequently a predisposing cause to local neuritis; and besides alcohol, which has been already mentioned, other toxic influences produce a somewhat analogous condition, for instance, diphtheria, lead, syphilis, and the extraordinary endemic disease in Japan known as Béribéri. The real cause of Béribéri has not yet been ascertained. After many specific fevers also local paralyses, due to peripheral neuritis, sometimes occurs. Ross, in his very excellent work on "Nervous Diseases," mentions several cases as occurring after enteric fever. It has also been seen after scarlet fever and small-pox. Dr. Buzzard mentioned several points which would help in forming a diagnosis between cases of central nervous disease and peripheral trouble. In alcoholic paralysis the knee-jerk is absent, and there is decreased electrical excitability. In diphtheritic paralysis the electrical reactions are normal, and the knee-jerk, if it disappears, only does so after a long time. Dr. Buzzard mentioned a case of diphtheritic paralysis, in which the knee-jerk did not disappear until the 170th day after the first loss of power was noticed, and the knee-jerk remained in abeyance for

108 days, and then gradually returned. It is to be noted what a different opinion exists as to the presence or absence of knee-jerk in diphtheritic paralysis. Two of the greatest authorities in London on nervous diseases have within the same month given expression to almost diametrically opposed opinions. Dr. Gowers says that the absence of knee-jerk may be one of the earliest signs of diphtheritic paralysis; and Dr. Buzzard says that if the knee-jerk disappears at all, it is after the paralysis has existed for some time. If the knee-jerk were absent in a case of diphtheritic paralysis, sensation in the feet impaired, and a pseudo-ataxic gait present from want of harmony in the strength of muscular contractions (which indeed is often the case) we have still an important sign to help to distinguish the affection from locomotor ataxia. In diphtheritic paralysis the pupils act to light but the power of accomodation is lost; in tabes dorsalis the reverse is the case. In diphtheritic paralysis there is often tenderness along the trunks of the nerves and optic neuritis may be present. This symptom is probably not present in alcoholic paralysis. Sensory disturbance is present in diphtheritic paralysis, but very little wasting of the muscles, the reverse obtains in infantile paralysis. In alcoholic paralysis the extensor muscles are those chiefly affected. In acute myelitis of the cord the sphincters are affected, and there is a tendency to the formation of bedsores: the reverse is the case in multiple neuritis, but in multiple neuritis the lower extremities are apt to suffer most. Some cases of supposed infantile paralysis which get well are very possibly cases of peripheral neuritis. Often the only important difference which will help us to a correct diagnosis between multiple neuritis and locomotor ataxy are the electrical phenomena. In both we may get girdle pain, shooting pains in the limbs, unsteady or ataxic gait, altered sensation in the feet, and inability to stand in the dark. The paralysis due to alcohol is characterized by dropped feet almost as frequently as lead poisoning is accompanied by dropped hands. In the former cases the tibialis anticus, extensor communis digitorum and the peronei muscles are those which become affected. Most of the facts I have alluded to were mentioned by Dr. Buzzard in his lectures, which have added considerably to our knowledge of a little studied affection.

From time to time attempts are made in England to cope with the growing evil of hospital abuse. Lately an association of gen-

tlemen has been formed to establish provident dispensaries in various parts of London, to which the poor are to subscribe so much a month or week for themselves and families, so that they may receive medical relief, if necessary at their own homes, in time of sickness. The subscriptions will necessarily be low, and in the opinion of the *Lancet* (which has always opposed the scheme) will offer an inducement to those who can well afford to pay ordinary medical fees to try and obtain medical relief at a cheap rate. Possibly some men who are in a position to pay a family doctor would subscribe to these dispensaries in order to avoid a doctor's bill. But as long as all comers are received and attended at the hospitals gratuitously,it is far better that some small fee should go to the medical man than none at all. To stop this wholesale application at the hospitals, it has been suggested that no patient should be received by them who has not previously made application to, and been passed on by a dispensary. It is proposed to affilate several dispensaries to each large hospital and practically to transfer the out-patient departments of the hospitals to the dispensaries. Such a scheme, if it could be carried out, would no doubt materially alter the present state of things for the better. The announcement has been made that with the end of the year "The Medical Times and Gazette "will cease to be published. It has been the longest established of any of the London Weekly Medical Journals, and its loss will be much felt. It has been the most independent and best written of all the medical papers; its eminent respectability is perhaps the reason it has been out-stripped in the race by its less scrupulous rivals. E. V. A.

Journal of Cutaneous and Venereal Diseases.—Dr. Piffard has retired from his editorial connection with this journal, which will be continued under the sole editorial charge of Dr. P. A. Morrow. This is the only publication in the English language devoted solely to Skin and Venereal Diseases, and during the three years of its existence it has won for itself a high reputation for scientific excellence as well as practical utility. In addition to presenting all that is new and valuable in these special departments, the colored lithographs and wood engravings which illustrate the original articles are worth more than the price of subscription. We have no doubt that this high standard will be maintained in the future.

COMMUNICATIONS.

ANENCEPHALOUS MONSTER.

New Market, Mo., Dec. 12, 1885.

Editor Courier:—If some reader will turn to page 281, March number of Courier, 1885, they will there find wood-cuts representing a horrible monstrosity that occurred in the practice of Dr. Chever Bevill. I refer to said wood-cuts because they very well illustrate a similar case that I recently encountered. In my case, as in Dr. B's., "the superciliary ridges were absent," and of course all that part of the skull that is normally above them: "the eyes were on the corners, so to speak, of its head," the upper eyelids being the most elevated part of the facial contour: the eyes were very prominent and bulging, giving a very hideous, frog-like expression to the countenance. The ears were very much as figured in Dr. B's case, but were hardly so prominent, each being doubled upon itself, especially the left which was smaller than the right. Nearly the entire posterior part of the head was occupied by an oval, ulcerous looking surface, with sharply cut, serrated edges, which were formed by the scalp, sparingly covered with a downy growth of hair for about the space of three lines from its borders. This denuded surface did not seem to be of an ulcerous nature, but there was simply an absence of scalp at that place; it terminated below at the first dorsal vertebra, *the cervical vertebræ being entirely absent*, the head, as it were being "stuck on the shoulders", and just above its termination were two small apertures apparently communicating with the spinal canal. The nose, mouth and chin were very well formed, as was also the trunk, but deformity laid its blighting hand upon the extremities and genital organs. The fingers were flexed and fixed: the thumbs were normal. The feet were drawn inward and partially curved upon themselves, the concavity being on the inside of the feet.

The sex of this miscreation was female. The labia minora might be said to have been the labia majora, as they were the larger of the two structures, discolored and standing out in bold relief from between the larger lips, giving a very peculiar appearance to the external genitalia.

The mother was only seven months pregnant when she was delivered of this monstrosity. She has a little girl about three years old, who is pretty and sprightly. She is 24 years of age, her husband is 26; both are well formed and of good intellect. The husband is a man of good habits. The patient was in labor all night and day: the child was born at 7 P. M. I was not called in until about 4 P. M. The pains were very strong, and the bag of waters very tense even between the pain, so that I had to examine very carefully lest I should rupture the membranes prematurely. After the os was sufficiently dilated, I ruptured them, and an enormous quantity of liquor amnii gushed out, rapidly reducing the previously large abdomen. On examination I was enabled to make ont the presentation, which before I was unable to do. The head and both feet presented. I brought down one foot and left the case to nature; no difficulty was experienced in the delivery of the child. The child's limbs felt hard and firm, and its general appearance, as well as that that of the placenta which was soft and friable, gave evidence that the fetus had been dead for some days or weeks. One hour after its birth it was of a livid hue. The pregnancy, I am informed, progressed without anything happening worthy of mention, until about the fifth month, when the mother was badly frightened by a snake.

I will add that there was some difficulty in the delivery of the placenta, though no more than is frequently the case in premature labors.

The lady had a transient elevation of temperature the day following labor, and considerable tympanites and tenderness over the region of the uterus for several days, but convalesced in about the usual time.

J. S. Brown.

INDIAN OBSTETRICS.

Okmulgee, I. T., Dec. 22, 1885.

Editor Courier of Medicine:

I noticed in the December number of the Courier, a discussion about keeping a woman on her back eight days after delivery of her child. I am a young practitioner, from the Missouri Medical College, not yet graduated. I have always been taught to keep a women very quiet in the bed till the lochial discharge ceases to be

red. I have been practising here among the Indians about three years, and have noticed some strange things about obstetrics, viz., They don't often have a doctor to attend them in labor; they often go to the woods alone and when the child is born, come back to the house, bringing it in their arms. They often do not go to bed at all. There was an old custom among the Creeks of keeping a woman to herself in some out-house till her child was of certain age. They also kept her there when she was menstruating. They are getting more like white people now, and do not hesitate to call on a physician when their "medicine men," fail to cure by blowing in a pot of water through a reed. I have attended a few cases among them, and always charge them to stay in bed, but they don't generally heed my advice. So far I have not seen any bad effects from it, though of course, I cannot approve of getting up too soon, though I don't see any need of a woman staying on her back eight days without even turning over. The best authorities differ, and I have found that a young practitioner has to read them all, and do as he thinks best. Yours, etc.,

G. R. Rucker.

International Congress.—The Executive Committee of the Ninth International Medical Congress, to be held in the City of Washington, D. C., commencing on the first Monday in September, 1887, having accepted, under Rule 10 of the Committee on Preliminary Organization, the charge of the business of the Congress, hereby give notice to the members of the medical profession that they have been actively engaged upon, and have now nearly completed the arrangements for this meeting; and they anticipate the hearty co-operation of the profession everywhere in developing this great scientific and humanitarian assembly.

By order of the Executive Committee.

Henry H. Smith, M. D., Philadelphia,
Chairman of Executive Committee.

Nathan S. Davis, M. D., LL. D.,
Secretary-General of Ninth Int. Med. Congress.

Erratum.—In Dr. J. T. Davis' communication (vid. December number) a few words were accidentally omitted. On page 574, line 5, it should read: If, as is often the case, the bowels act too freely, I give bismuth and Davis' powder. This latter, etc.

OBITUARY.

ELIAS R. DUVAL, M. D.

Biographical Sketch by Geo. W. Smith, M. D.

Elias R. Duval was born at Fort Smith, Ark., August 13, 1836, being the youngest of the six children of Capt. William DuVal, who settled in Fort Smith in 1828. The father having died when Elias was fourteen years old, the oldest brother, Ben. T. DuVal, managed the estate and directed the education of the younger children. The mother died in 1841. Elias graduated from the Arkansas College at Fayetteville in 1854 and soon afterward entered the office of Dr. T. J. Pollard, of that town, as a medical student, and attended his first course of medical lectures at Louisville in 1856.

The next year he spent in study and practised for several months in Robertson County, Texas; and in the fall of 1857 went to Philadelphia where he graduated in 1858 at the University of Pennsylvania, and obtaining a situation in the City Hospital, remained there for several months. He then accompanied the command of Lieut. Early Stern to New Mexico as an Assistant Surgeon, U. S. A. till March, 1859, when he resigned; and in June following established himself in private practice at Fort Smith.

In 1861 he was appointed Assistant Surgeon C. S. A., and in the same year was promoted to the rank of surgeon.

August 1862 he became chief surgeon of the second division of the first army corps of the Trans. Mississippi Department; and in March, 1863, was appointed Medical Director for the department. In 1864–5 he was First Assistant of the Trans-Mississippi Department under Surgeon J. M. Haden, with headquarters at Marshall, Texas.

Dr. DuVal was quiet in his manners, never demonstrative, yet warm and firm in his attachments. From his childhood he was a student: in the literary college he stood in the front rank for his good conduct as well as in his studies; and although quite young he graduated high in his class.

He loved his profession, studied its mysteries profoundly and in

its practice brought into activity all the powers of his strong intellect, and ministered to his patients with all the tenderness of a loving heart.

To the sick in body—to the distressed in mind and heart he was the physician, comforter and friend. No man ever exercised a stronger or larger influence upon his fellows than he.

Among his brethren he was honored for his learning, respected for his professional integrity and beloved for his gentleness and courtesy.

By his patients he was idolized,and by his fellow citizens he was elected without solicitation to places of honor. In a word he was in the highest sense a physician, and practised his profession upon the most elevated plane of ethics.

He loved justice and hated iniquity, and ministered to the poor and unfortunate with the same zeal that he did to the rich.

In the winter of 1884 he went to New York, and attended a course of lectures in the Post-Graduate College, giving special attention to gynecology, with the view of devoting himself to that branch of practice.

The last production of his pen was a paper entitled "Eclampsia Puerperalis," published in the last number of the Courier of Medicine.

His loss to the profession generally is great. The city and state of his birth will long miss him among the leaders of medical practitioners.

In 1884 he was elected a member of the School Board of Fort Smith, and was chosen its president.

The sale of the Military Reserve of the old Fort had created a large school fund, the proper management of which for the best advantage of the educational interests of the growing city fell principally on Dr. Du Val, who gave of his time and ability for the public good with characteristic unselfishness.

Two fine school-houses, one being provided for the colored people in whose education he was deeply interested, are testimonials of his intelligent and energetic administration during his presidency.

Many contemplated improvements were unfinished at his death, but enough was accomplished to entitle him to the gratitude of the people, and to connect his name forever with the cause of popular education.

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ORIGINAL ARTICLES.

CLIMATIC TREATMENT OF CONSUMPTION.

BY W. C. GLASGOW, M. D., ST. LOUIS.

[*Read before the St. Louis Medico-Chirurgical Society, Jan.* 12, 1886.]

IN the selection of climates for consumptives, there are certain underlying principles which cannot be disregarded. That a climate in itself possesses no curative effect on diseases of the lungs has been fully recognized, but experience has shown that certain climates exert a favorable influence in the progress of the disease, and thus furnish a most powerful factor in producing the desired condition—chronicity, or the stage of arrest. That certain climates exert this beneficial influence in certain cases and utterly fail in others, is usually recognized, but the special conditions requiring a certain climate and the character of the climate itself, seem not to be properly appreciated.

It is certainly true that there are certain climates where the native inhabitants have great immunity from phthisis and tuberculosis: these places have all certain characteristics; they have a low atmospheric pressure, are dry, and have a high altitude. The altitude in itself embraces and presents what are recognized as favorable characteristics of the climate. According to Jaccoud the degree of altitude necessary for immunity varies with the latitude and longitude of the locality. In the study of the

health stations of Central Europe he places the elevation in the upper Engadine and other parts of Switzerland, at four thousand two hundred and fifty feet, in the Styrian Alps at twenty-three hundred feet, and at the more northern station at Goerbersdorf, in Silesia, at eighteen hundred feet. At these elevations, varying thus according to the latitude and longitude of the place, there is a comparative immunity from phthisis and tuberculosis in the natives, and certain cases of non-residents in which the disease has already developed, find here conditions favorable to an arrest of the disease. Denison, from a study of such cases in the high altitudes of the United States, places the limit of approximate immunity in Colorado at six thousand feet, the ratio of immunity decreasing with the lessening of the altitude.

Although these elevated regions exert in certain cases a beneficial influence, in others they prove to be positively injurious, and simply hasten a fatal termination which might be delayed or avoided by the choice of a climate of a different character.

Denison has divided the climates of the United States into four classes: excessive dryness, moderate dryness, moderate moisture, excessive moisture. He considers dryness or moisture to be the result of all the varying conditions necessary to produce a given climate. Practically, a moist climate is a sedative, enervating climate, and a dry climate is a stimulating, tonic one. The low-lying land of Florida may be taken as a type of the moist, sedative climate; the higher regions of South Carolina, Georgia and Alabama, and certain portions of California, belong to the class of moderate moisture; the elevated plains of Texas, with Arizona, portions of New Mexico, California and Montana, may be considered as types of moderately dry climates; and the more elevated regions of the Rocky Mountain plateau offer in perfection the climate of excessive dryness and great stimulation.

The effect of the different varieties of climate upon the human economy must be considered in describing their value in reference to a special case of disease. In high altitudes we find a general stimulation of all the processes of nutrition, and a general tonic effect is produced in all the organs; the thin rarefied

air of low barometric pressure necessitates an increased number of respirations, and the full amount of the latent breathing space of the lungs is brought into action. The chest is enlarged and the smaller bronchi are kept in a continual state of increased distension; the whole economy is sharply stimulated to the full performance of all its functions.

Volkmann claims that the low barometric pressure causes a flow of blood from the internal organs to the periphery, keeping the viscera in a condition of comparative anemia, and that the amount of blood in the thoracic organs is in direct ratio to the atmospheric pressure, the external and internal pressure being equal; such being the case, the liability to congestions or inflammations is diminished, and the pulmonary circulation is more perfect. The whole effect of a high altitude upon the individual is antagonistic to mal-nutrition, the primary process in the development of phthisis and tuberculosis.

The stimulating effect of high altitudes acting so energetically on the vital processes, will have a most disastrous effect when applied to some of the pathological conditions found in a case of phthisis. It is well-known that inflammations, although rarer, are intensified and run a more rapid course in high altitudes. The tension of the nervous system is exalted, and the motive power of the heart stimulated; from this we can clearly see that when active inflammatory processes exist, when the nervous system is in a state of excitability, when heart lesions, diseases of the arteries or emphysema are present, the higher dry climate, will only intensify the existing lesion.

The effect of a climate of low altitude or low barometric pressure is the reverse of that of high altitude. It is distinctly a moist and an equable climate: it is sedative in character, although, when so situated as to be exposed to the ocean breezes, the marine nature of the climate may add a somewhat stimulating effect. It imparts little vigor or tone to the constitution, and may rather be considered as protective or preservative in its influence. If the vigor and nutrition are not impaired the moist sedative climate with its equability offers the best advantages for avoiding those accidents which may be looked for in the dryer regions.

In the case of the consumptive, we find the sedative climate favors the subsidence of the inflammatory processes; it rests and soothes the excitability of the nervous system, and quiets the circulation. The dense humid air of high barometric pressure favors the respiratory process in conditions in which the respiratory space is impaired. On the other hand the sedative climate is lacking in the tonic effect necessary to counteract the disposition to mal-nutrition; the moisture favors the progress of disintegration and decay; and the dense nature of the air allows respiration to be satisfactorily performed with a minimum distention of the lung vesicles, and by a more limited part of the lung. The tendency to congestion in the internal organs is well known, verifying the law of Volkmann, and, as this favors the inflammatory and destructive process, an additional injurious element is engrafted in the case.

In suggesting climates for individual types of consumption, I can only in this paper give the views obtained from personal experience. These may not strictly accord with those of others, but to me they are satisfactory, as they are the result of a study of a large number of consumptives during the past fifteen years, many of whom I have been able to follow during a long term of years and whose death, improvement or comparative recovery have been recorded.

It may be proper to say that my views on the vexed question of the etiology of consumption are those of the Virchow school, and that I regard phthisis, both cheesy and fibroid, as a distinct form of disease from tuberculosis, although it is found in many cases complicated with it; I mean they are clinically distinct forms of disease, although microscopically they seem to be identical.

Climatic change is not indicated in cases of acute miliary tuberculosis of the lung: this form of disease is incurable and runs its course regardless of treatment. I am aware that a few cases of recovery have been reported by Lebert, Jaccoud and a few others, but their rarity and the impossibility of making a differential diagnosis from cases of irregular typhus with bronchitis, necessitates a post-mortem to confirm the assertion. The almost unanimity of general experience regarding the fatality of the disease, demands absolute proof of its incorrectness. If the

same or increased comforts can be obtained without sacrifice, by a change to a softer and more balmy climate, it is not counter-indicated but it must be simply to obtain increased comfort and the possibility of out-door life, but not with any hope of cure. In my experience the high stimulating climates have proved most unfavorable, and have hastened the end in all cases of miliary tuberculosis.

In cases of phthisis, the form and stage of the disease, the activity of the morbid process, the complications and the individuality and vitality of the patient, have all to be considered in advising a change. In the early stage of all forms of phthisis prior to, or after the acute stage has passed, and in cases not complicated by inflammation of the mucous membranes, we find the greatest benefit from a residence in the higher altitudes. In certain cases this is productive of a permanent cure.

In cases in the second and third stages, with acute softening and formation of cavities, in which the disease is active, I regard home the best place; and I cannot advise any change, until there is a subsidence of the acute stage, which is shown by a cessation of the symptoms, and development of the signs of commencing arrest. In the acute stage of the disease, intelligent medical treatment, combined with the comforts and quietude of home are imperatively demanded. Should the acute stage continue with great heat, profuse night-sweats, gastro-intestinal disturbances, with great exhaustion and continuous waste of tissues, as is the case in acute phthisis, it is simply cruel to subject the unfortunate sufferer to the hardships of travel and the discomforts of boarding houses.

When, however, the tendency to chronicity is established, whether the case be in the second or third stage, as is shown by the physical signs and symptoms, by the change of the continuous fever to the intermittent, by the diminution of the sweats, then a change may be of great service. In these cases, unless there is some counter-indication, the moderate elevation with medium dryness, seems to be most beneficial. We find such climates in the table lands of north-western Texas and in the upper Rio Grande country. In a few such cases I have seen good results produced by a residence in Minnesota. I believe a mod-

erate elevation to be best during the first year, then, if inclination or business opportunities demand it, a residence in the higher table lands may be allowed.

The patient's individuality must be considered, especially in regard to susceptibility to heat and cold, in deciding on the location. The long and continued cold winters of the north may, in some cases, be less beneficial than a milder climate in a more southern latitude. This is especially to be considered, as the residence in the chosen home should be permanent, or at least continued for several years. A premature return to the home climate has often undone advantages obtained, which cannot be regained.

We find certain cases of phthisis in which there is a massing of the degenerative products in one or both summits, or a general diffusion throughout one lung; these are cases of chronic softening, and there seems to be little tendency to the formation of large cavities or the development of fibrous tissue; these cases are essentially chronic in character; in some a diffuse subacute pneumonia exists, in others there seems to be a state of chronic congestion accompanying the phthisical product. We find this class of cases often in hereditary phthisis, and an arrest of the degenerative process is rarely if ever accomplished. These cases do better, and life is prolonged in the moderate or lower altitudes. The highlands of the Carolinas, Georgia and Alabama, Central Texas and the pleasant resorts of Southern California offer desirable stations, especially for the winter months. As we have little hope of producing an arrest of the disease, it should be our aim to place such cases in localities where the most comforts and greatest enjoyments for the few remaining years can be obtained.

In selecting a place of residence for a case of fibroid phthisis, that is, a case in which the fibrous element is predominant, we must be guided greatly by the complications to which this form of disease is especially liable. If there is no acute inflammation or irritation of the mucous membranes, they do very well in the higher altitudes, but should this complication exist, lower elevations are absolutely required. As many of these cases start in a sub-acute bronchitis and peri-bronchitis, a climate that has a

marine nature is sometimes very desirable. I have found a residence during the winter at certain portions of the gulf coast, with a change during the summer to the climate of Minnesota, to be of benefit.

Although in pulmonary phthisis the prominent lesion exists in the lungs, still from the constitutional nature of the disease all the other organs and the whole economy are more or less affected; thus we often find in the complications positive counter-indications to a place of residence which would otherwise be indicated. The acute inflammatory condition of the larynx, the bronchi or the gastro-intestinal tract counter-indicates a stay in the higher altitudes. According to my experience, such cases are invariably rendered worse in the thin rarefied air, they are better in a more sedative climate of lower elevation, such as is found at the altitude of fifteen hundred to thirty-five hundred feet: such a climate is somewhat tonic in its nature, but lacks the irritation existing in the higher elevations.

The condition of the nervous system deserves due consideration in all cases of consumption. It is now well established that high altitudes aggravate the morbid conditions due to an exalted, irritable nervous system, although conditions resulting from nervous exhaustion are improved. We meet with both classes of cases in consumptives, and this must be fully considered in our choice of a climate. The fact of hemorrhages having occurred does not always counter-indicate a high altitude as a place of residence. Congestive hemorrhages in the early stages are often checked and do not return. In cases, however, with acute softening or in which fresh cavities exist, there is danger from hemorrhages. Such cases do best at lower elevations. These views in regard to hemorrhage coincide with those expressed by many European writers who have made a study of the climate of high altitudes of Switzerland and also with those of Dr. Denison who has had a large experience in the high plateau of Colorado.

Cases complicated with diseases of the heart, whether organic or functional, invariably do badly in high altitudes: these with cases of emphysema must seek lower elevations.

Bayard Taylor has stated that "the charm of the most beauti-

ful cascade is greatly enhanced by the presence of a good hotel in the back ground." A climate may be ideal in its nature suiting perfectly the requirements of an individual case, but will be absolutely unsuitable unless good living accommodations can be obtained. In a disease like consumption, depending so largely upon mal-nutrition, good digestible food is a prime necessity in favoring a cure. We all know that a good stomach is an all important factor in recovery, and it certainly would not be wise to send our patients to any place, however suitable the climate may be, where proper food is not obtainable, or where it would be prepared in such a manner, as to be indigestible and apt to bring on the very digestive disorders which we find so important to avoid.

The possibility of having occupation or amusements and the presence of congenial society will add greatly to the value of a place as a health station, and the absence of these factors in certain cases will absolutely condemn it; the worry, the loneliness and the ennui exert an effect so depressing on the vital powers that they will fully antagonize any climatic advantages to be obtained.

In the older countries of Europe all these advantages may be obtained in conjunction with suitable climatic stations, but in the newly settled regions of the United States we still find the disadvantages and discomforts so great that the proper benefits of climate cannot always be obtained.

In those specially favored spots where a certain amount of comfort and amusement can be found associated with a good climate, the expense of living is often so great that the vast majority of our patients are unable to profit by it. In many cases, even if able to make the long journey, want of means compels them to seek accomodation in inferior boarding-houses, where proper food and attention cannot be obtained.

Finally it is well to remember that in certain cases phthisis is a self limited disease, that improvement and arrest take place in climates which are theoretically most unfavorable. We see this strikingly exemplified in our hospitals, and can often note the great benefit resulting from the transferrence of a consumptive from a damp unhealthful home, to the airy well-regulated

wards of a general hospital. This experience teaches us that even at home we can do a great deal for our consumptives by intelligent medical advice, attention to the rules of hygiene and a general application of all that may be included under the phrase the "Home Treatment of Consumption."

NOTE ON THE TREATMENT OF PORT-WINE MARK BY ELECTROLYSIS.

BY W. A. HARDAWAY, A. M., M. D., *Professor of Diseases of the Skin in the St. Louis Post-Graduate School of Medicine and in the Missouri Medical College.*

[*Read before the American Dermatological Association, Greenwich, Conn., Aug.* 27, 1885.]

SOME of the members present will recall the discussion on the treatment of port-wine mark which occurred at the Third Annual Meeting of this Association at New York in Aug., 1879. On that occasion I claimed to have tried electrolysis in that deformity using a bundle of needles with great benefit. Others had either never employed it, or had been disappointed in its use.

In Piffard's Materia Medica and Therapeutics of the Skin (1881), the author records having treated two small wine marks with fairly good results by this method. He employed a Carroll's vaccinator. Later, in the *Archives of Medicine*, Dr. G. H. Fox called general attention to this mode of procedure. In the St. Louis COURIER OF MEDICINE, June, 1883, I made this statement: "I have not seen a case in which some degree of improvement has not been manifest, and in some port-wine marks of small extent the results have been brilliant."[1] Lastly, Dr. Fox in his illustrated work on Diseases of the Skin (1885) thus sums up his experience in this operation: "The electrolytic treatment of wine mark I have practised during the last five years, and, al-

1. This operation is not to be confounded with the similar one, that is by electrolysis, first proposed by me for the obliteration of enlarged vessels in rosacea and allied states. See *Arch of Dermatology*. Oct., 1879."

though I cannot claim that the operation accomplishes all that could be desired, I have repeatedly succeeded in transforming a dark and unsightly stain into a smooth patch of a light pink hue. The object aimed at in the treatment of wine-mark by electrolysis, as in the case of scarification and puncture, is to excite sufficient inflammation to destroy the fine net work of blood-vessels. As the galvanic current is more active, and at the same time more manageable than acid adhering to the points of needles; it is not strange that this method should produce the desired effect in the speediest manner and with the least injury to the surface of the skin." So far as I know the references and quotations above constitute the literature of the subject.

Now at the end of six years of experience in the electrolytic treatment, I think I may be justified in laying before you the results of my observations.

The modus operandi is, of course, well understood, and consists in the use of a needle or needles, placed in a suitable holder, which latter is attached to the negative pole of a galvanic battery. The successive steps of the operation are the same as those that I have often described in connection with the removal of superfluous hairs. The most important point relating to any destructive operation upon the skin, is that the operator should control the destroying agent as much as possible. The facility with which this end is accomplished in electrolytic methods constitutes one of its chiefest merits. In order, therefore, that I may control this destruction in the most satisfactory way, I have for a long time discarded the bundle of needles, and make the electrolytic puncture with one only.

By the cautious and expert use of this one needle, I now no longer set up extensive areas of suppuration, as was apt to be the case with the crown of needles; and since employing the single needle I have no fear of the keloidal scars, which sometimes followed the introduction of the bundle. The operation is thereby rendered somewhat more tedious, but certainly safer. It is a tedious thing to do at best, for when the puncture is made the surrounding region becomes so blanched, that we are at something of a loss to know exactly where to make the next one to the best advantage, and the next day for quite a space around

the operated place there is an inflammatory areola, and perhaps crusting, which forces us to wait for a number of days before operating again. Then I have found that one cannot really form an estimate of the result in a given area until at least six weeks or two months afterward; and when I have gone over all the space that I intend working upon, I am in the habit of dismissing the patient for a season. No one pretends for a moment that in a port wine-mark of any magnitude this operation is going to leave a normal skin behind it. In the majority of cases we aim to produce minute multiform scars, which in time become white, and thus obliterate the nevus.

It often happens, however, that a large area is permanently blanched without scar by apparent obliteration of vessels at its periphery. In some cases I have observed that intense brown pigmentation takes the place of the red surface, which, however, gradually undergoes absorption, leaving the skin white. This generally occurs on parts where the the skin is thin. Where one needle is employed the resulting scars are usually thin, supple, non-depressed, in no case leaving behind elevated knots and cords such as I have seen result from galvano-cautery.

It is very important, as stated above, to allow periods of some weeks to intervene between the successive operations, so as to give ample opportunity to the skin for recuperation, and to enable one to see clearly the result. Even after a tolerably thorough first going over, it will be found that many pale spots and spaces have been established, and we then proceed to pick out the intervening red places.

Proceeding in this necessarily cautious and deliberate way, many months may be occupied in the labor before any adequate result has been obtained; yet I know that the benefit conferred by this operation has made life worth the living to a good many people.

Very often I think it is better, in a cosmetic way, to endeavor merely to lighten the color of the mark rather than to convert it into a dead white patch; of course, where the mark is quite small, a thin white, and even glistening, cicatrix is not especially objectionable. It is not uncommon to find that in an apparently obliterated wine-stain after a while dot-like te-

langiectases will appear here and there. They must be again destroyed.

I do not know that I can better illustrate the features of the operation than to present the notes of three cases that have been under my observation for some time past.

CASE I. This patient, a fair haired young lady, had a port-wine stain of the left side of the face, taking in the brow, the upper eyelid, the left side of the nose, and the same side of the upper lip. She had been operated on by the various methods in vogue, namely, Squire's Sherwell's, and the electro-cautery. She reported the first two as being of no use in her case, or perhaps it would be better to say of no value as performed by the gentlemen she consulted. The electro-cautery operation had certainly been successful in the way of obliterating the stain in certain places, but the result was worse than the preceding deformity. On the forehead there resulted an elevated, radiating scar, which was exceedingly disfiguring. The patient told me, moreover, that an ugly suppurating wound had followed the operation, which was weeks in healing. I commenced operating with a single needle on the side of the nose, the upper lip, and an isolated silver dollar-sized patch upon the temple. Later on I attacked the forehead and upper eyelid.

Without going into the details of the tedious operations, which have run over a period of a year and a half, I shall speak merely of the effect so far produced. The patch on the lip is a great deal lighter, even in the places where the stain still persists, but in many places are to be seen small white scars. One place, near the ala of the nose, is perfectly blanched, although it was never operated upon. The discoloration on the nose is nearly gone, although here and there red dots are to be observed, sufficiently numerous, I must admit, to give this region still a pinkish hue although not at all as pronounced as the original color. The patch on the temple is absolutely obliterated, leaving in its place a white superficial scar. Over the forehead the red color has disappeared in many places, but in other parts a yellowish pigmentation has supervened which is gradually, but surely, being absorbed; I attacked the elevated cicatrix produced by the galvano-cautery, and, as I had observed before in other hy-

pertrophied scars, the effect has been striking as regards smoothing down the scar.

Taking it all in all, the condition of affairs in this case has been bettered at least fifty per cent, and I believe that I shall yet see this very much improved.

CASE II. This was a dark-skinned young man, who had a triangular mark extending, as regards its base, from one angle of the eye to the other, and running to an apex at the junction of the nose and lip. When he first came to me five years ago I made a little operation on a small outlying portion about the size of a dime. I then advised him to wait several months to see how matters would turn out. He did not return to me for eight months for further work, but he was induced to come back by the fact that the operation had been successful. From this time on he would come into the city about every six months and stay two months at a time. The result has been very gratifying. The patch is but little visible, whereas formerly the young man had a most forbidding aspect. I have noticed that even on the most completely worked over places now and then a little pin-head sized red spot will appear, which I again destroy. There has been nothing like an attempt at a general return, however; A letter which I have received from this patient will give a good idea of his estimate of the results, and in such cases, the patient is as well qualified to judge as any one else. Under date of July 25, 1885; he writes as follows: "Everybody agrees that the work so far has been a success. The lower part and on the nose is almost clear, but immediately under the eye, where it used to swell so, it is a little red yet, but not a dark red as at first. I am well satisfied that if the mark had been a little distance from the eye that it would have been gone by this time."

CASE III.—This was a red-haired young man, with a deep red stain on the right side of the nose. I worked on him for six months, but the result has been miserable. A few out-lying spots have been made to disappear, but the mass of the stain is in about the same condition as before. At one time while working around the periphery of the patch the central part became nearly white, but in a few weeks the color returned of about the same tone as before. Even the spots where the needle had been

plunged, producing a great deal of inflammation and crusting, do not seem to become white scars, as is usual, but become red again, even when a pit has resulted. The affected tissue seems to be unusually spongy, and must be exceedingly vascular.[1]

I have tried to make a fair presentation of the facts as I have observed them, and my object has been, not so much to vaunt a particular operation as infallibly successful, as to bring out experience on a very important matter. I must say in conclusion that, so far as I know, the electrolytic method offers a number of advantages, and, in the hands of a person experienced in its employment, secures results in many instances that are very gratifying to the patients at least. I am far from saying that other methods are not equally satisfactory because I have not succeeded with them; for I believe that an operation which from lack of skill may prove unsuccessful in my hands, may be very efficient when done by one especially skilled in its performance.

2303 Olive Street.

COCAINE IN INSANITY.

BY ALEXANDER B. SHAW, M. D., *Late Associate Physician to St. Vincent's Institution for the Insane, etc.*

[*Read before the St. Louis Medical Society, December* 19, 1885.]

GENTLEMEN: Frequent interrogation in regard to the therapeutic value of cocaine in the treatment of insanity, and more especially that variety denominated melancholia, has induced me to prepare this paper, based upon some facts and conclusions arrived at by personal observation of the immediate and later effects due to its use.

1. I saw this young man a few days ago, it now being fully six months since the last operation. I was delighted to discover that I had undervalued the method in his case; for, upon inspection I discovered that the whole nevus was lighter than formerly, and that in a number of places were to be found good smooth white scars. The patient was sufficiently well satisfied to return for treatment.

A short time after its administration, hypodermically, cocaine produces decided exhilaration in a vast majority of cases lasting, as a rule, but an hour or two; in a few the exhilarant effect is more slowly developed, and it lasts longer; but in others, in fact a tolerably considerable number, almost instantaneous depression of a manifestly dangerous and alarming character, sometimes amounting to positive collapse with every evidence of impending death is suddenly produced by its introduction, even in minimum doses.

Where depression follows its use the first symptoms are great pallor of the face and hands, acceleration of pulse and dilatation of the pupils.

The subject soon complains of a feeling of extreme prostration and nausea, and the respiration is sighing in character; large beads of perspiration appear. The skin is cold and clammy; the pulse becomes very feeble and irregular, and in a few moments retching and vomiting that is distressing to witness occur, and unless effective stimulation is immediately resorted to, death from collapse may speedily ensue.

In a number of cases wherein depression occurred, it seemed to be due to the administration of the cocaine shortly after the ingestion of a meal; so frequently was this the case that it leads to the inference that the drug produced sudden arrest of the process of digestion, and that this in turn reacted on the vasomotor centres causing imperfect functioning in the respiratory and cardiac centres.

Although deaths from this condition of sudden prostration from cocaine have been reported, still under the use of aromatic spirits of ammonia, carbonate of ammonia and whiskey internally, the hypodermic injection of sulphuric ether, and the application of hot, dry cloths and bottles of hot water to the body and extremities, death, so far as I have seen, has been averted, but hours may elapse before the patient is so far recovered that we can safely say that all danger is past.

The administration of cocaine *per os* is much more likely to produce nausea and general uneasiness than its use hypodermically; but observation thus far teaches that the sudden and extremely alarming and dangerous state sometimes following the

latter does not develop after the former mode of medication; however, the continuous use of cocaine, either *per os* or hypodermically, *impairs the desire for food* and frequently leads to derangement of the gastro-intestinal tract.

In the N. Y. Med. Record of recent date, Dr. T. H. Burchard reports an instance in which he says the hypodermic injection of ten drops of a four per cent solution of cocaine, four minutes after its use precipitated a condition that was well-nigh fatal. So depressed was his patient that the radial pulse could not be felt; and fifteen minutes after the collapse occurred there were but seven or eight respirations per minute.

Not only does *inability to sleep* result from its use; but when the effect of the drug is wearing off and a state bordering on sleep is reached, the most hideous and horrible fictions of the fancy dependent on the perturbed condition of the cerebral circulation and nutrition are engendered, and the powerful enervating influences of horror and fear caused by the frightful hallucinations are superadded to the depression of reaction invariably and naturally a sequence of matured stimulation and excitation of the brain, calling for unwonted expenditure of and drafts upon the nerve force, or vital energy, if you will.

It has been claimed that cocaine would prove of invaluable service in the treatment of insanity, and particularly in that form known as melancholia, by reason of its powerful stimulant and exhilarating properties, that not only would the melancholic be caused to forget his doubts and fears, but that under its magic spell he would partake of food freely, and from the combined influence of these two effects his condition would be very much ameliorated, that those in charge of him would have less trouble and his cure would, of necessity be materially hastened.

This is certainly an attractive trinity, but, well in view of what has been stated in regard to the prostration, insomnia, hallucinations and loss of appetite consequent on its use, what must we think of such claims.

The unfortunate results which have followed and will follow the diffusion in the popular mind through the secular press by positive assertion and ingenious insinuation of the idea that won-

derfully beneficial results are to be derived from the use of cocaine in disorders of the mind, the opium habit, and dipsomania, are deplorable.

Some one, to me unknown, recently wrote an article which appeared in one of our local daily papers on cocaine under the caption "The Devil's own Drug," and I heartily congratulate him, if present, on the selection of such a phrase whereby to designate this drug, so devilish in its influence upon man when used for its exhilarating properties. For, once this charmer has charmed its victim, it undermines his physical and mental powers, his honor, honesty, conscience, veracity, faith, chastity, morality, self respect, and respect of his fellow men for him.

To the self complacency, egotism and disregard for the truth which it begets, I attribute one-half of the statements made by alcohol and morphine slaves who have been placed upon it, to the effect that their old favorite is no longer desired. In the remaining fifty per cent there is probably no longing for the old mistress because the stimulant cocaine, with all its evil sequences, has simply, for the time, displaced, *not eradicated*, the former habit.

Cocaine proves an *ignis fatuus*, luring on its captives to almost certain and irretrievable wreck and ruin, morally, mentally, socially and financially.

Not only is it degrading and debasing in every sense of the word, but, as I claimed in a recent paper published in the *Weekly Medical Review* of October 24, '85, cocaine produces insanity in a remarkably short time, if used continuously and in increasing doses.

So far as I know, I can justly claim priority in calling the attention of the profession to the pernicious influence of cocaine in this direction.

Shall we treat a scalded child by pouring boiling water over or into it? Or tetanus, by systematically inducing violent spasmodic muscular action? Certainly not. And the attempt to cure insanity by prescribing cocaine is equally absurd and reprehensible.

One of the prime factors in the production of insanity and the most potent causes of its continuance until pronounced organic lesions occur is hyperemia of the brain.

Now, the exhilarating effect of cocaine is largely due to an abnormal supply of blood to, or hyperemia of the brain, and hyperemia of any organ, if long continued or of pronounced and frequent repetition, results in hyperplasia. It is notably so with the spleen in malarial troubles, hence, ague-cake, so called, with the liver from excessive indulgence in alcoholic stimulants, as witnessed in cirrhosis of this organ; even highly seasoned food, especially in tropical climates, may produce like pathological changes in the liver.

But without multiplying examples I am convinced, that, as excessive mental exertion, long continued, great anxiety, or alcoholic excesses, etc., will cause a form of insanity, wherewith we find as pathological conditions of the brain excessive proliferation of connective tissue, congestion and thickening of the membranes and degeneration of its substance, etc., known as general paralysis of the insane, and characterized, so far as mental symptoms are concerned, by sleeplessness and general restlessness, associated with transient depression and hypochrondriacal fancies, forgetfulness, mobility of disposition, generally good natured but liable to spells of passionate excitement, disposition to undertake impracticable enterprises, remarkable extravagance in both acts and language with grandiose notions as to wealth, physical and mental powers, etc., alternating with acute maniacal or melancholic attacks, marking step by step the progress towards general fatuity with now and again some remarkable remissions. So will cocaine, if persistently administered in increasing doses—and there is so rapidly established a toleration of, as well as craving for its exhilarant effect that increasing dosage becomes a necessity—cause a form of insanity closely resembling, so far at least as the mental symptoms are concerned, *general paralysis of the insane;* and I would suggest that the pathological changes produced in the brain and its coverings will closely resemble those found in general paralysis of the insane.

Let us for a moment review some of the mental symptoms due to the use of cocaine in considerable quantities. These are: 1st, sleeplessness; 2nd, carelessness; 3rd, forgetfulness; 4th, emotional mobility; 5th, suspiciousness; 6th, extravagant ideas,

as evidenced both by acts and languages, claims as to mental superiority and physical prowess, in short ideas of grandeur; 7th, attacks of maniacal excitement alternating with melancholia.

Does not this picture recall the one made up of the mental symptoms present in general paralysis of the insane?

But it may be urged that because of the exhilarating effect of cocaine it will prove curative in melancholia if administered in quantities insufficient to produce insanity.

A priori this seems reasonable, especially so to a mind already under the influence of cocaine; but when we consider that the exhilaration produced by cocaine is of but transient duration, that it is followed by a period of depression more profound than that which existed prior to its administration, we cannot but realize that such treatment will be prejudicial to the best interests of one suffering from melancholia.

I have seen a patient afflicted with melancholia attempt suicide by cutting the radial artery three times in ten days, while, in order to exhilarate him, he was receiving cocaine to such an extent that it so seriously impaired his desire for food and his general nutrition and strength that the nurse in charge of him—and she has had about twenty years' continuous experience in caring for the insane—declined to continue the drug unless I *positively insisted* that she should do so. Dr. Bremer is familiar with the history of the young man I refer to. While insane patients that could scarcely be induced to take nourishment have under the influence of cocaine partaken more freely of food than they did before its administration, yet the daily use of cocaine even in small doses seems to invariably impair the desire for food, although the contrary is generally stated by the patient; notwithstanding he is gradually losing weight and strength.

Now it is one of the cardinal points in the treatment of melancholia that the body must be well nourished, if possible; and I do not hesitate to assert that any treatment that will have even a tendency, let alone a positive influence in this direction, to even indirectly interfere with the nourishing of the patient is inconsistent and reprehensible.

Another cardinal point always to be kept in view in the treatment of insanity is the securing of sleep for the patient, and it

is a rule, I was about to say without exception, that cocaine produces insomnia, and not only insomnia but wakefulness accompanied by the most horrid hallucinations.

Here, then, is another effect of cocaine showing conclusively that its use in insanity, especially that form known as melancholia, is contraindicated.

It seems absurd to a degree almost beyond conception to give an agent in the treatment of insanity that interferes with the nutrition of the body, whether its action causes a lack of desire for food or directly interferes with the proper performance of the digestive process.

It is equally absurd to prescribe a drug, which will necessarily abridge the small amount of sleep we are able even by the administration of quite considerable doses of powerful anodyne and hypnotic medicines to secure for the insane, and certainly nothing can be more supremely ridiculous than the attempt to cure insanity by the use of a drug that not only induces those conditions which predispose to insanity and intensifies them where they already exist, but will in a remarkably short time produce insanity.

While one, two or even three sparrows do not make a summer, still it would seem from the influence of cocaine on Dr. B., of Chicago, and others, that cocaine has the peculiar power of developing the delusion that it is a drug of such wonderfully curative properties that it is the *sine qua non* in some particular direction, and that by properly manipulating it, it can be made to bring great riches or renown to its victims.

Dr. Ziem, of Dantzig, has communicated to the *Allgem. Medicin cent Zeitung*, the notes of a case in which he applied two drops of a four per cent solution of cocaine to the eye of a man aged 40. In a few minutes after, the pupils had become dilated, the patient's face had become pale, sweat broke out on his forehead, and his breathing became embarrassed. Dr. Ziem at once loosened his clothes and opened the window, but it was a quarter of an hour before he could return home. The man's wife said that he had not previously had syncope. He was of intemperate habits, and some years ago had been treated for disturbances of motor power in the lower limbs, apparently connected with syphilis. Dr. Ziem says that seventeen cases have

been recorded in ophthalmological literature in which toxic effects followed the use of cocaine. In three it was injected hypodermically, and in fourteen dropped into the conjunctival sac. The cases have been described by Peck (1), Meyerhausen (1), Stevens (1), Reich (2), Knapp (3), Hense (4), and Bellarmimoff (5).

In some cases the symptoms have been transient, consisting of pallor of the face, giddiness, and sweating of the face or neck. In others, there have been dyspnea, great feelings of prostration, malaise and apathy, lasting sometimes for several days. Vomiting and headache have been rarely present. In one case the application of fifteen drops of a two per cent solution to the conjunctiva was followed by tottering gait, difficulty of speech, confusion of the mind, and extraordinary restlessness; and in another the subconjunctival injection of about eight drops of a 3.5 per cent solution produced convulsions and loss of consciousness. The strength of the solution used was 4 per cent in eight cases, 2.5 per cent in four, and 2 per cent in three or four others. The quantity generally varied from two to four drops. The subjects were in some cases feeble, aged women, and in others they were strong and healthy individuals, both male and female. (*British Medical Journal*, November 21, 1885.)

Dr. Bresgen, of Frankfort, who has had the opportunity of observing the milder forms of cocaine poisoning, especially after the application of the drug to the nasal mucous membrane, related (*Med. Times and Gazette*, Nov. 21, '85) two cases which deserve no ordinary attention, since the poisoned persons were the writer and his wife. In the case of the lady a smaller dose was employed, and in both the solution of cocaine was introduced in three drop doses into the nostrils. The symptoms produced were first a feeling of general chill, increasing to absolute shivering; a preliminary exaltation of spirits, followed by depression, feeling of nausea in the throat, startling eyes and a vacant expression, with difficulty of speaking and thinking. There was combined with this *an extraordinary degree of wakefulness.* The gait was unsteady, and a feeling of almost paralytic weakness of the limbs was noted. *The appetite was lost*, and there was, indeed, an *absolute loathing of food.*

These symptoms persisted in a greater or less degree for twenty-four hours.

REPORT ON OBSTETRICS AND DISEASES OF WOMEN.

By B. F. Hart M. D., Brownsville, Mo.

[*Read before the Saline County, Missouri, Medical Society, Jan.* 5, 1886.]

A WIDE field certainly has been given in which to range. No field in medicine is of more interest, or appeals more directly to the sympathies and best efforts of the physician. At the present time there is no more popular field both with the scientific physician and the veriest quack. Indeed, there appears to be a fatal infatuation to all would be meddlers and quasi-specialists, centred in and hanging around the reproductive organs of the female.

Never since the days of Cook, when the liver was well nigh persecuted to the last extremity, has any other organ of the body suffered so severely at the hands of those who feel called upon to say something or do something new, if only fo a sensation or false show of knowledge, as the uterus and its appendages. Certainly no class of diseases is so much over-treated and mistreated, in season and out of season, as those peculiar to females. This new order of things lies within the memory of all physicians who have been in the profession for thirty years.

Prior to that period it was no uncommon occurrence for women to exercise the reproductive function in accordance with the decrees of nature and pass through life quietly as shining lights of modesty and reserve, with few outside the family physician and husband knowing anything about the sexual organs and their derangements. Not so now, however, for not only are the natural afflictions, but all manner of imaginary disorders of woman flaunted to the public at every turn. So indefatigable and persistent has been the search after female troubles in latter days, that scarcely a school girl of fifteen sunmmers can be found in the land, who has not been condemned as a subject of *womb-disease*, and whose life has not been made miserable at the revelations made by wonderful pryers into the mysteries of nature, as well as into the pockets of the unwary and unsuspect-

ing. A dispassionate and sober thought about this matter is well calculated to awaken the liveliest interest in behalf of the gentler sex, to whom we owe our very existence, first nourishment and early training. If the same progress in specialism shall continue for thirty years more, who dares affirm that there will be enough civilized women left capable of reproduction, to meet the ends of an all-wise purpose? There is one whose special effort it is to extirpate the inoffensive clitoris to cure some real or imaginary neurasthenia; one to lay open the abdominal cavity and raid for the ovaries and tubes on the merest suspicion of abnormality without any positive proof of its existence, to satisfy some freak of the brain and build a monumental reputation; one to carve and slice for stenosis of the os at one turn, and at the next to repair its rents in labor, that have been more or less common throughout the ages of the world without interference by the gynecologist; one with caustics, swabs, syringes, and antiseptic solutions to deluge the vaginal and uterine tract throughout for the purpose not only of warring on the actual ubiquitous micrococci, but to anticipate an *intended* raid by them; another with an armful of divers pessaries and supports, to be tried and fitted every day or two for all manner of malpositions and persistent craziness of the womb, and with perceptions so acute as to discover this state of affairs in almost any unsuspecting victim; and still another to lay seige to the womb, the centre of woman's sexual apparatus, and without mincing matters remove the entire business at one fell swoop, for tumors, malignant and otherwise. It is not strange, this condition of things existing, that apprehensions and dire forebodings should arise in anticipation of the threatened annihilation of the better classes of mankind, more especially since it is known that many have learned but too well the secret of preventing conception, and many others hesitate not to link themselves with criminality's darkest records by the arts of abortion.

After all this terrible onslaught against real and imaginary troubles peculiar to women, what is the outcome? Where is the great good that has been accomplished in her behalf? Echo answers where?

It is not doubted, nor is it denied, that much good has been

accomplished in certain directions, and that many lives have been made bearable and even happy that otherwise were doomed to wretchedness and misery. But, this has been done in the face of actual disease, and sore afflictions about which there could be no manner of question. The objections pertain not to those operations and procedures which bring sure relief in cases fairly recognized as suitable for such interference, but to the too frequent resort to operative procedures for troubles that lie on the boundary line between a normal and abnormal condition, if not of purely imaginary creation. There is too much fashion, and a certain craze after something striking, new and sensational out of which to manufacture an ephemeral reputation, in the present tendency of treatment to be for the best good of the woman.

Take the natural process of parturition for instance, and observe what a wonderful fuss and parade is made over it, and by those too, who stand high in the medical profession!

To one unaccustomed to the designs of nature, and the beautiful and harmonious operation of her laws, it might seem impossible under the present version of matters, for child-birth to be accomplished without the greatest amount of meddlesome and pernicious interference by accoucheurs and divers other persons. Such evidently was never the intention of an all-wise Creator. And it is casting an unjust reflection on His infinite wisdom and the perfection of His creations, to regard this matter in the light of a short-coming, in his plans and purposes. Parturition under ordinary circumstances, is a natural, healthful, physiological process in itself, and the subsequent changes are entirely reparative without any tendency to diseased action. From various causes, internal and external, of course, there is occasional demand for interference both surgical and medical.

Fashionable and progressive interference with this natural process begins *now* at least a month before confinement, and continues nearly as long after; and it is tolerably heroic at that.

Such meddlesome, absurd antagonism to nature's laws deserves the severest condemnation from all medical men of science and common sense. It is claimed by eminent medical men that every parturient woman should be regarded in the light of one undergoing some capital operation in surgery, and be subjected

to the same treatment. Heaven forefend against such intensified nonsense! Never since Creation's dawn, was there enunciated anything so supremely absurd, and entirely at variance with the workings of nature, and the true revelation of medical art and science.

The conduct of a natural labor may be after this fashion. An examination *per vaginam* is soon made by the accoucheur after being called, to see what progress, if any, has been made, to note the presentation, position of the child, the capacity of the pelvis, and condition of the maternal soft parts. The patient need not be confined to the bed nor to one position till the os uteri is dilated and the presenting part begins to pass through the pelvic bones, when she is placed on the back as the most natural position, with head and chest well elevated, and the thighs flexed. If there is nothing faulty in the position of the child, nor disproportioned in the pelvis, the medical attendant should exercise a vast amount of patience; watch and wait on nature's forces in the fullest confidence that in most cases they will be sufficient unto the end, if time enough is given. If there is anything wrong in the case, the business, of course, is to right it at once, in accordance with the rules that ought to be familiar to every one proposing to take charge of such a case. Examinations should be infrequent, and no interference tolerated that is not absolutely called for, and without which labor would fail to progress. There is no need for chloroform, ergot or any other medication, ordinarily. If the perineum is firm and unyielding, the application to it of cloths wrung out of hot water, or a liniment of equal parts of chloroform and olive oil, or the moderate inhalation of chloroform, will generally answer the purpose of affording relief. To support the perineum, receive the child properly, tie and cut the cord, is the business of the attendant; after which, his immediate attention should be given to the condition of the womb. According to Crédé, this should be done while the child is making its exit, but this seems unnecessary. By a gentle kneading process, the womb should be made to contract firmly, thus offering security against hemorrhage and favoring the expulsion of the secundines. In a short time, the womb being contracted, an effort is made to remove the pla-

centa. This is done by wrapping the cord securely around the fingers of one hand while the fingers of the other are introduced to the mouth of the womb pressing the cord back; at the same time moderate force is made at the external end, the female being told to bear down. Soon it passes away in most cases, and it should be a matter of much concern to see that all portions of the membranes do likewise. Moderate force on the cord in the direction indicated, will be void of harm. If the placenta is adherent, it should be peeled off gently and carefully with the fingers in a short time, and thus save any amount of after trouble. By the same kneading process the uterus should be made to contract down to a solid ball, after which all clots are removed from the vagina, the binder and compress applied, the vulva bathed off by the nurse, wet garments changed for dry, the woman put properly to bed, with the request to lie on her sides in preference. Then positive requirement is exacted that she diet very light, abstaining from meat and colicky vegetables for ten days, and remain in the recumbent position fourteen days; that the child be put to the breast in six hours, the bowels moved mildly in due time, that when the chamber is needed, she sit squarely over it, and, if necessary, assist clots of blood and bits of membrane, should any be left, with the finger to pass away.

The bathing of the privates twice daily with soap and warm water so as to keep the parts perfectly clean, is emphatically enjoined. These with a few other simple rules looking to cleanliness, quiet, composure; and the patient is discharged, to be seen no more in nearly all cases; but she is warned to give notice at once, should much pain, fever, or anything else unusual occur.

How wonderfully and strangely does this simple conduct of labor contrast with that now inaugurated by many learned city physicians. And while this has been his practice for thirty years, the writer is proud to declare that no woman in child-birth, of his own cases, can lay her death to his charge during that long time, although a reasonable allowance of complicated and instrumental cases may be enumerated in the list.

If such *simple* treatment meets all the demands in a case of labor uncomplicated, what good can be expected to follow from

continual meddlesomeness with a purely natural function? The patients do not convalesce any more rapidly, nor is the mortality rate lowered in the least, but on the contrary there is evidence to show that directly the opposite result obtains in too many instances.

Some seem to think that this natural ordering of nature cannot proceed without chloroform anesthesia; and it is the easiest thing imaginable to educate the female up to that standard. Chloroform is a dangerous remedy, and should not be used in any case unless there is a special demand for it. True, fewer accidents have occurred in its use obstetrically, than under any other circumstances perhaps. Still this does not do away with a certain amount of risk, which should never be taken unless for good reason. If there were no danger of suspending the action of the heart and lungs, its known tendency to favor hemorrhage, should abridge its use in obstetrics to the least degree. The world was peopled by the same old natural process for thousands of years before chloroform was known; and there is no reason why it should not continue to the end of time. If officiousness must be exerted contrary to the plan marked out by nature; it were better, perhaps, to use by inhalation a combination of nitrous oxide and oxygen, four to one, as being less dangerous and equally efficacious; or better still, to bring the parturient woman under hypnotic influence, when she finds to her great surprise on awakening a babe in her arms. This is getting away with nature in a harmless and certainly a very felicitous manner.

A woman in the puerperal state differs very greatly from one in the normal condition under other circumstances; yet it is not abnormal for that state, because it was so ordained by the great Creator. The nervous system may be said to be in a state of hyperesthesia, the processes of digestion and nutrition are more or less interfered with, and the blood changed very greatly, being deficient in red corpuscles while the fibrine is much increased. These changes, though not unnatural, no doubt predispose the female to certain dangers, which may be averted in most cases, by strict attention to rest, diet, composure of mind and perfect cleanliness.

A lesson may be drawn in obstetrics from the lower orders of

the animal creation. Except in very rare instances this process with them takes place without any assistance whatever from any body or anything. Such doubtless was the history of human parturition in prehistoric times; and even *now* natural labor in the uncivilized races, most frequently has no eye-witness save Him who ordained all things. If our civilization has changed the ordering of nature, then the proper remedy would be to conform it to nature's laws. But the history of child-birth under such surroundings as most persons can secure, shows a very low death-rate, with no better attention than that of a common midwife, wholly ignorant of these new fangled notions, conceived and hatched in the brains of over-credulous visionary theorists, or would-be impracticable meddlers in the name of progress.

It were well to consider the female and her troubles in the light of nature and common sense, which is a tolerably sure and unerring guide.

There is nothing in the foregoing thoughts that would preclude the necessary attention of the accoucheur to allay anxiety in ordinary, and to meet the exigencies in complicated cases of labor; nor of the gynecologist to repair actual damage of a serious nature and to perform whatever other operations may be of actual benefit to the female without taxing too severely the risk on her life. In other words, all praise is accorded those brilliant and successful efforts put forth during the past few years in behalf of woman. Far be it from the writer to detract one iota from the reputation of some who have labored so nobly and so untiringly in this cause, indeed from any who have done good work in this field. But that there is a terrible abuse being practised in this direction to the very gre t detriment of woman and the best interests of society, no observant physician can have failed to discover. To meet this state of the case and arrest as far as may be this onward tide of over-interference, and downright quackery in some instances, these thoughts have found expression. Dr. Wm. Goodell, of Philadelphia, a distinguished physician and gynecologist, and one who is authority on such matters, said recently that: "The crying medical error of the day is the mistaking of nerve disease for womb disease. From this wide spread delusion it has come

to pass that no organ in the human body is so over-treated and consequently maltreated, as the womb." In all the history of the ages there never was a more truthful declaration made; and the time will surely come when it will be uttered by the medical profession with one loud acclaim. May God in His infinite wisdom and great mercy to the human race, speed the time.

About two years ago the big medical guns of New York City unlimbered and sent a broad-side of terrific explosives into what they conceived to be "old fogyism" in the prevention and curative treatment of puerperal fever. This charge was led on by that worthy and distinguished medical man, Dr. T. Gaillard Thomas, which is but another proof that all wisdom is not confined to great men in this special department any more than, in the general practice of medicine, it is to that other of world-wide renown, Dr. Austin Flint, who recently proclaimed that the way to cure dyspeptics was to allow them free and unlimited indulgence in food of their craving of any and every kind, which will be called in question by every old dyspeptic, as well as by all medical men with even a few years experience.

Whenever great men get too speculative, they are very liable to go astray, and there is no field more seductive in that direction than the medical.

Maternity most evidently was intended to be a delightful, joyous period in the history of female life; all nature proclaims it with one spontaneous accord; yet, what must be the awful state of dread and suspense, in the minds of women under Dr. Thomas' treatment? Instead of looking to the time with pleasurable emotions and happy anticipations, their life must be one of dreadful forebodings, paralyzing them with terror at the approach of the terrible ordeal of child-birth. What would be the natural outcome of a mind and body thus wrought up to such a high state of tension and excitement? What else could be expected but all manner of puerperal troubles, such as Dr. Thomas seems so anxious to prevent?

Cause and effect generally have a close relationship; and so high an authority as Dr. Fordyce Barker, of New York City, and many others known to fame, think they see this relation between the modern treatment of the puerperal woman and puer-

peral disease. The old fashioned name of puerperal fever does not suit Dr. Thomas. He prefers puerperal septicemia, with some show of reason, and applies it to all the inflammatory conditions common to the puerperal state. Dr. Barker takes issue with him, and thinks comparatively few of those disorders have their origin in a septic poison. Between these two extremes, a great many lesser lights may be seen to throw their feeble rays in different directions with much profusion. The term septicemia, as thus applied, Dr. Thomas thinks gives a true index to the pathology of these diseases. He makes a distinction between puerperal septicemia and toxemia, which results from the absorption of the decomposing after-birth.

The Germans and many in this country take the ground that puerperal fever, so-called, is connected directly with the round bacteria. These bacteria are supposed to find a lodgment in the tissues of the body through rents in the genital tract. This is probably true in a large majority of cases, but there is good reason for supposing that these troubles sometimes owe their origin to other causes. Erysipelas in an epidemic form at times seems to be an efficient cause, resulting in great fatality. Some other contagious diseases are believed to have something to do with it; and it is probable also, that the inflammations connected with this peculiar state may owe their origin to simple causes in many instances.

That the disease known as puerperal fever, metria and other names, is caused by a micrococcus, there can longer be little doubt, since it has been found associated so frequently with the disease; besides from analogical reasoning about other diseases, one is naturally and almost irresistibly drawn to this conclusion. This poison, whatever it may be, is supposed to find lodgement by the fingers and instruments of the accoucheur, or through the air. When once admitted to the lochia in the uterus and vagina these organisms fructify prolifically, and soon enter adjacent structures through rents in the tract, and sinuses on the placental site; setting up lymphangitis, perimetritis, cellulitis, etc. There is hardly any doubt that the retention of portions of placenta and membranes, and clots of putrid blood, are very greatly concerned in the production of this poison; indeed it is

quite probable that without their presence the germ would not find acceptable conditions for its home, nor suitable surroundings for its multiplication.

Now, it is the terrible scare these learned gentlemen have received about the micrococcus, that has led to so much antiseptic treatment, both prophylactic and curative. Dr. Thomas lays down ten rules to be observed in private as well as hospital practice, in the way of prophylaxis. If such a wonderful show of opposition is not in the right direction to act as a barrier against this destructive little microbe, it certainly ought to be quite sufficient to rout it through fear; that is, supposing fear has anything to do in the make up of so insignificant, yet potential a factor in disease. Such a masterly preparation to ward off its attacks is quite enough surely to destroy the equanimity of most puerperal women, whether it has that effect or not on her arch enemy. Were these rules not so ridiculous and absurd, it would be worth the while to give them a little airing. It may suffice to mention, that the room in which confinement is to take place is to be thoroughly carbolized from floor to ceiling, the bedstead and mattress ditto, the curtains and upholstering removed. Physicians and nurses are put through a course of scrubbing and clothes changing. As labor begins the nurse scrubs her hands with soap and water again, cleans finger nails with a brush, and puts into practice the regular business of deluging that already much overworked canal, the vagina, with vile antiseptic compounds every four hours, protecting its orifice and vulva meantime, with cloths wrung out of the same. Both doctor and nurses should keep up repeated scrubbing and disinfecting of the hands. After the third stage is completed ergot is given and repeated three times daily for a week. The privates are to be thoroughly examined, and, doubtless, if under a microscope so much the better, and lesions of continuity and abrasions properly treated. Soon after labor the regular business of antiseptic vaginal injections is begun in dead earnest and continued for ten days, together with iodoform suppositories. A new gum catheter is antiseptisized every time the bladder is evacuated. The doctor must know for a fact, that the nurse is competent to do all this injecting and disinfecting.

Such in brief, is an outline of this but recently unheard of treatment. Intra-uterine injections are opposed by him, unless after instrumental operations. Some of the progressionists in this line, go far beyond him. They frequently begin the disinfecting vaginal injections a month before confinement; and when it is ushered in, the carbolic spray is brought actively into use during all the stages, after which the entire genital tract from the vulva to the fundus uteri is injected antiseptically every two or three hours for ten days or two weeks. All this worry and work is in behalf of *prevention*. But, does it effect so desirable a purpose? Some who have tried it, turn about, in the same ward, can see no difference between cases treated cleanlily, and those treated antiseptically. Others, of high rank in the profession, among whom is Dr. Barker, have tried this preventive measure, and declare it produces the very effect in a large number of cases, that it is used to prevent. This being the state of evidence in the case, and the practice being directly opposed to reason and common sense, no amount of authority should longer give it countenance. Dr. Garrigues, of New York, tried the injecting plan till he was satisfied of its inefficiency, and then adopted a kind of barricade to keep out the microbes, by applying antiseptisized compresses and divers other pharaphernalia to the vulva in a vain attempt to stop the orificium vaginæ. He might well have exclaimed, Eureka, I have found it; for his writing seems to indicate as much. It turns out, however, that the adoption of this treatment from which he claims such fair success, happened to coincide in time with the removal from a filthy old hospital into a new one, well arranged; thus taking all the wind out of his sails, and allowing him to drop heavily. It must be admitted, however, that this plan appeals more strongly to a common sense as well as scientific view of the matter than most others that have been presented, especially if the lochia is allowed to pass semi-occasionally.

If the experience of the writer is worth anything, preventive measures may be greatly simplified as applied at least to practice away from large cities. The best promise in the way of prevention, requires that the accoucheur shall thoroughly wash his hands with soap and water and clean the finger nails, if recently

in contact with erysipelas or puerperal septicemia, before approaching the female; that all portions of the after-birth and clots of blood shall be removed at once, and the uterus by kneading, made to firmly contract; that the position of the woman in bed should be on the side, for two reasons: first, this favors adhesive union of any slight rents in the fourchette or perineum, and second, in this position the labia being closely approximated well nigh closes the vaginal orifice, thus rendering it next to impossible for the raiding bacteria to find an entrance to their favored medium for proliferation. It is thought that this simple requirement may be quite as effective and even more so than the antiseptisized fortification of Dr. Garrigues.

It is necessary further that the external parts shall be kept perfectly clean by bathing off with soap and water three or four times in the twenty-four hours, and the linen and cloths used to receive the lochia, which may or may not be carbolized, be renewed often enough to secure the same end; that the diet shall be strictly antiphlogistic for ten days, to the end that the system may be kept free from all extraneous matters, and all undue excitement disfavored; that quiet in the recumbent position shall be observed for two weeks to favor the process of involution, to prevent the womb from settling permanently too low in the pelvis; and further, to contribute thereby to the equal distribution of the circulation and fluids of the body; and last, but not least, that the woman, when called to evacuate the bladder or bowels, shall sit squarely over the chamber, thus favoring the passage of debris, clots and lochia, and, if necessary, assist such passage by her fingers.

A strict conformity to these simple, common-sense rules, has enabled the writer to pass through life with scarcely any trouble pertaining to the puerperal state. Where the labor has been hard and greatly prolonged, where instruments have been used, or there is a decomposing fetus, it has been thought prudent to syringe out the vaginal tract with some warm water, followed by an antiseptic solution two or three times in the twenty-four hours for a few days. As a curative measure in puerperal septicemia, Dr. Thomas recommends a most vigorous application

of antiseptic treatment to the surfaces of the vagina and uterus by interrupted injections with a Davidson syringe and Chamberlain's glass tube, as often as from one to five hours, depending upon the severity and exigency of the case; and in very bad cases the continuous stream from the fountain syringe to the very fundus of the womb, supplemented by interrupted injections every three hours. Where there is suspicion of attached placenta the use of the finger nails as a curette is advised. To reduce temperature the rubber tube coil with ice water flowing through it, is applied to the abdomen, the patient to be put under the influence of morphia hypodermically used. A free exhibition of quinine or salicylate of soda is required. Diet is confined to fluid food.

Two nurses and one extra doctor are supposed by him to be necessary to put into practice successfully this terrific warfare against the pestiferous micrococci! Shades of our good mother Eve, and all the host of the departed matrons of long ago, look not down on us with derision, nor yet with bewildering astonishment! for while efforts are switched off the track occasionally, they are, on the whole, in the right direction, and the goal, it is to be hoped, will ultimately be reached.

When this antiseptic treatment, prophylatic and curative, for puerperal fever was first enunciated by such high authority as Dr. Thomas, it struck the profession throughout the country like a cold wave, and created, as well it might, quite a flurry of excitement. Many took the ground herein advocated, that the business was just a little over done, and some went even farther.

The writer would like to be reckoned in the van-guard of true progression in medicine, and flatters himself that he has made some advances in that direction, but in shunning destruction against Scylla, thinks it best not to run into the vortex of Charybdis. Much regret is felt at having to differ from so high authority, and nothing but a sense of duty to professional interests and the well-being of humanity, prompts us to the act.

Personal experience in the cure of this disease has not been extensive, for the reason, perhaps, that preventive measures have been all-sufficient. The disease having set in, the treatment deemed most appropriate is just a full dose of castor oil and tur-

pentine to clear the primæ viæ of gas and excrementitious matter. This is very important. Then fomentation by bags of hops wrung out of hot water and applied as hot as can be borne, being frequently repeated, is believed to meet the case better than cold applications, since heat is most efficient in breaking up congestion and inflammation through its known action in causing the stagnant blood corpuscles to move onward, thus removing one of the local troubles, when the febrile symptoms will tend to subside in consequence. It seems better decidedly to strike at the root of a trouble than at one of its symptoms. These applications may be alternated sometimes with stupes of turpentine, and in case of very great tenderness and pain, a large blister is applied followed by warm poultices. Especially is this indicated where there is general peritonitis.

The full effect of an anodyne is needed to allay restlessness, remove pain and produce sleep; and as the disease progresses toward prostration, quinine, tincture of iron and glycerine in combination are thought to be useful, in connection with light but nourishing diet.

With much confidence, antiseptic vaginal injections are now brought into requisition. Carbolic acid, boracic acid or bichloride of mercury solutions are used two or three times in the twenty-four hours, first washing out freely each time with warm water.

There has been some apprehension in the mind of the writer about injecting the uterine cavity with disinfecting fluids, because there is danger of the fluid entering the open sinuses and of air doing the same thing; of pain, shock and convulsions, if the fluid is cold, and of hemorrhage, if it is warm; of washing off coagula from vessels, thus opening the way still better for the septic germ, and of throwing fluid into the peritoneal cavity through the Fallopian tubes, resulting in fatal peritonitis. Some of these dangers may be obviated by exercising great care and gentleness, having the fluid a little warm. Were the fluid used hot, of course there would be no hemorrhage, but where it is used so often, it is likely sometimes to be too hot for the good of the patient. With so much authority in its favor no hesitancy would be allowed in trying occasional uterine injections in very

bad cases, more especially if there had been an adherent placenta, or grounds for strong suspicion of detached portions of membrane in the cavity. Much caution, however, it is believed, should be used in invading the holy precincts of the womb, because of dangers indicated, and further to give a set back to the present tendency of too much freedom in that direction.

The treatment of puerperal fever here outlined, although a little different from that of Dr. Thomas and some others, and certainly much less vigorous, has been quite sufficient so far, to antagonize destructive tendencies, and bring about a restoration to health. The prevention and curative treatment of this disease, not unlike that of other diseases in this respect, is often found not so satisfactory as could be wished; for in many cases it seems no preventive measures will answer, and no curative treatment will arrest the fatal tendency. While the treatment, preventive and curative, as given, has been satisfactory, there ought, however, to be a distinction made between the disease as it occurs in cities, and especially in hospitals where the environments are most unhealthy, and in towns and country practice enjoying a salubrious atmosphere and good sanitary protection.

If the cause of this disease be of bacterial origin, then it is easy to explain why there should be such great dread in the minds of city practitioners, and the death rate with them so much greater, since it has been established by actual experiment that just in proportion as advance is made from the pure air and bracing sunshine of the country through hamlet, village and town, to the city, does the air become more dense with bacterial life, culminating in their greatest abundance in old ill-ventilated hospitals.

It is safe to declare that very much of knowledge relating to this dreadful disease is as yet unknown to the profession, and is still open for investigation. Whoever shall clearly define the true cause, and the best preventive and curative treatment for it, will erect an imperishable monument to his own fame, and confer an everlasting and untold blessing on the better part of the human race.

CASES FROM PRACTICE.

CLINICAL LECTURE.

BY THEOPHILUS PARVIN, M. D., PHILADELPHIA.

[*Reported for the* COURIER *by Dr. J. F. Edwards.*]

SUSPECTED PREGNANCY.

We have here presented to us a woman aged 31 years, who is married and who commenced to menstruate at about 17 years of age. She has had six children, the youngest of whom is now 17 months old, and which she has nursed up to within a short time. She comes to us now complaining of a tumor in her abdomen, the nature of which she wishes to find out. It is slightly more prominent on the right than on the left side, is somewhat tender and seems to have diminished somewhat within the last two or three weeks. Now, what is it? Here is a woman who has been an abundant child-bearer. I have told you that taking women through and through, the average of children is four and six-tenths for each married woman; therefore, this woman has exceeded her share. There was some fever at the inception of this swelling. The tumor reaches to the umbilicus. We can see here the movement of the abdominal aorta, which we note in pregnancy and in ovarian tumors, but not in cases of ascites. I feel the cervix soft, and there is some bulging of the external parts. The areola is somewhat darker than usual, but we cannot lay much stress on this with a woman who has had so many children, but the glands of Montgomery are somewhat more prominent than they should be, even in a multipara, when she is not pregnant. If we can hear the fetal heart sounds, we are absolutely sure of pregnancy, but their absence is not proof positive that pregnancy does not exist. I cannot hear the fetal heart sounds, but the woman is very nervous, and this may account for it. You should examine carefully, in a quiet room, and if you do not find it at first, persist for an hour or two. Even then, if you fail to find it, and all other signs point to

pregnancy, do not give a positive opinion for or against this assumption, but wait a while; time is the great unraveller, wait and see what time will bring forth.

CYSTOCELE AND RECTOCELE.

Here is a woman over 60 years of age, and when she bears down, you perceive, protruding from the vulva, a glistening, elastic tumor. I take this to be the bladder, but in order to make assurance doubly sure I will pass a sound, which, as you see, enters the bladder. When I draw this tumor upwards, you will perceive another similar tumor posteriorly; this I take to be a rectocele, and, to make sure, pass my finger into the rectum, where it enters this tumor. So here we have a cystocele and a rectocele. The diagnosis is very simple and I wish the treatment were equally so. This woman has been under treatment for a year with tampons of glycerole of tannin, from which she has derived considerable relief. Her principal trouble is in urinating; the urine, as you can understand, is compelled to flow upwards against gravity, which is a matter of difficulty, and, as some of the urine must necessarily remain behind, it undergoes ammoniacal decomposition and irritates the mucous membrane, causing cystitis. The question of operation comes in, whether we shall operate to lessen the calibre of the vagina and to keep these organs in their places. But, in an old woman, like this, who has passed the child-bearing period, and when we can produce comfort by tampons and palliative means, we are not justified in operating. There is always more or less risk, and these operations are not always permanently successful.

CYSTOCELE.

Here we have another case of cystocele, but differing from the last in that the viscus is red and congested. This woman is married, has had two children and three miscarriages and has a history of syphilis. Her main symptoms are frequent urination and pruritus vulvæ. You will notice a slight growth or excrescence at the orifice of the urethra which has nothing to do with the cystocele. She has had hemorrhoids for which she was operated upon, and since the operation, the cystocele has troubled her less, which is due probably to the local depletion and the enforced rest, which the recumbent position in bed entailed. Here now in this case the question of operation would receive a more likely affirmative reply. The woman is only forty years of age, she is still within the child-

bearing period, and if copious injections of hot water and the faithful use of tampons fail to give her material relief, we will seriously consider the question of operation.

PECULIAR REFLEX MOVEMENTS IN A CHILD.

This little child (a girl baby) was before you last week, presenting a most interesting and not unusual condition. There has been for some time a continuous, spasmodic motion of the limbs, rubbing one thigh against the other, so much so that the child's grandmother considered it a manifestation of sexual passion. Your attention will often be called to older girls for this very condition where it will be erroneously ascribed to sexual passion. This idea is all wrong. This child really had a leucorrhea, followed by an offensive discharge, which, by its irritating action, has caused these erratic movements. It was not a simple movement, it was almost constant, the child's attention could not be diverted from it, it was really a torment. Bromides were used without avail: no good was accomplished until suppositories of iodoform, opium and belladonna were used, in conjunction with injections of carbolic acid, since which time the improvement has been most marked.

VAGINISMUS.

Here is another case that you saw last week. This woman has stenosis of the vagina or vaginismus. When she was here before, the finger could not be introduced into the vagina without causing very great pain. She was given suppositories containing one grain of muriate of cocaine and thirty grains of cocoa butter; one of these she introduced each night at bed time, and half an hour later put in a glass dilator having a diameter of three quarters of an inch and a circumference of two and a quarter inches. This was worn for several hours at night and not only secured the desired dilatation, but also precluded intercourse and secured that rest which is so essential in the treatment.

ENDOMETRITIS.

This woman, 26 years old, who has been married twice, comes here complaining of pain in the sacral, inguinal and sciatic regions. She has also vertical headache and general nervous symptoms: the appetite is poor and she is costive. She has trouble in urinating, and her menses are regular. Her bad health dates from her first labor, so that it probably has some connection with something that happened at that time. She has leucorrhea. Well, leucorrhea simply

means a white flow, it is the classic term for what is commonly known as the *whites*. If you ask a woman about leucorrhea, she will likely know no more about what you are talking about, than she will about Milton's Paradise Lost, but if you ask her if she has the "*whites*", you will be understood. To women the "*whites*" means any discharge that is not red. But you must ask whether it is watery or thick, whether opaque or transparent; most women can tell the nature of the discharge from the stain it leaves on the clothing. If the stain is stiff and starchy, you may be sure that the discharge comes from the glands of the cervix; a discharge from the vulva or vagina will not produce this condition. Pain in the back usually means some disturbance of the utero-sacral ligaments, which may be caused by a preternaturally heavy or a retroverted womb dragging on them. When we have found that a patient has leucorrhea, we must inquire as to its nature. Now we can see the discharge issuing from the cervix. We have here a case of endometritis, which is a disease that does exist, notwithstanding the efforts of many recent writers to disprove it, and a great deal can be done to relieve it. The cervix has been torn, and on account of this tear the womb has remained in a state of subinvolution. There is here chronic metritis and catarrh, and the uterus is turned somewhat backward. It is enlarged, measuring three and a quarter inches. We will here order very hot and very copious vaginal injections, as much as one gallon at a time, to be used daily. We will also apply iodine locally to the cervix, and after using glycerine tampons, paint the whole interior of the uterus with iodine. In connection with this local treatment, we will give this woman iron, ergot and mux vomica. Electricity is a most valuable therapeutic agent in these cases, and one should use the mixed currents, that is to say faradization and galvanization at the same time. There is a great field for the use of this mixed current in the treatment of subinvolution, which by the way is a bad term. It is really a condition chronic metritis. The uterus fails to go back to its original size, because it is inflamed, and our treatment must be based on this idea; it is not a physiological affair, as the old notion of an arrested physiological process (involution) supposed, but it is a pathological condition, an inflammation, that calls for appropriate treatment. Emmett says that in nearly all his cases of sub-involution there has been a laceration; you will find that in *all* case there is some cause for this condition.

STRICTURE OF URETHRA.

BY WILLIS P. KING, M. D., SEDALIA, MO.

NEW AND NOVEL METHOD OF DILATING A STRICTURE.

I have an item in regard to entering narrow and difficult strictures which I deem to be new and novel, as well as valuable, and which I wish to give to the profession through the medium of the COURIER.

I do not claim to be an expert in urethral surgery, though I have done some work in that region; but, I know something of the difficulties that beset the surgeon in these cases—difficulties that try his patience and tax his skill to the utmost.

External perineal urethrotomy is often resorted to for the relief of the worst cases, because the surgeon finds it impossible to perform internal urethrotomy or divulsion, on account of not being able to pass the narrow stricture.

I have used a method which, so far as I know, is entirely original with me, and which has overcome at least two severe cases which could not have been overcome by other means.

CASE I. This case was not, strictly speaking, a case of urethral stricture, but rather *urethral obstruction*; but as the principle is the same, and, as it was the first upon which I used this method, I give it here. This was the case of my own child—a boy baby about ten months old. Nine years ago, when this child was only nine months old, he had measles. There was retrocession of the measles, followed by capillary bronchitis, with high temperature, spasms, etc. There was a long and hard struggle between life and death, often spasms, with inability to swallow, which was relieved by the cooling bath, and the lowering of the temperature which followed. This struggle lasted thirty-four days. At that time life seemed to have triumphed—the child was better. The State Medical Association was to meet in St. Louis and I had a paper to read, so that my medical brethren, Drs. Evans and Jones, who had so faithfully attended the little fellow, urged me to go and read my paper. I went. On the second evening I received a dispatch, requesting me to come home at once, as the baby was dying. I reached home the next morning at 4 o'clock and found my wife and a friend sitting over the supposed to be dying child. They gave this history:

The child had not urinated for thirty-six hours. The doctors had twice attempted to catheterize him the day before and had failed and given the case up as hopeless. I asked to see the instrument. It was a small, brown, hard rubber instrument, (Weiss', I think) of proper size for a child of that age. I introduced it down to the membranous portion of the urethra where it stopped. I asked for a cup of warm water. After washing out my mouth I took a mouthful of the water, and, putting my mouth over the end of the catheter, and using it for a syringe, I gently and steadily forced the water into the catheter. While doing this, I held the urethra close to the catheter with my left hand, and pressed down on it with my other hand. The water opened up the way, and the catheter passed into the bladder. When I withdrew my mouth the stream of urine struck me in the right eye. After repeating this operation two or three times within the next twenty-four hours, an abscess pointed in the perineum, which I opened, and there was no further trouble. The pressure of the accumulating pus had collapsed the urethra and caused the obstruction. The boy is living and well to-day.

I have not had a case in which I found it necessary to use the *hydraulic* method until to-day.

CASE II. Dr. W. married, aged 35, residence Indian Territory came to me to-day, suffering from a urethral stricture, and with this history: He contracted a gonorrhea while at college in 1869; had all sorts of treatment, and the discharge lasted a year. It left him with two strictures which have given him more or less trouble ever since. Something over a year ago the strictures became so narrow that micturition became very difficult and he began to suffer from irritation of the bladder. He went to an eminent surgeon in one of our large cities, (I make this statement with that degree of blushing modesty which is supposed to ordinarily accompany this kind of disclosure!) who attempted to use gradual dilatation, and succeeded in dilating the first stricture three inches from meatus, but failed to enter the second, which was just anterior to the prostate. He then attempted to use the filiform bougie and divulsor: but after repeated trials failed to enter. He suggested external perineal urethrotomy which the patient declined. He returned home, and has suffered gradually increasing torture ever since. So serious had his trouble become that, latterly, it has taken him from ten to twenty minutes to pass his urine—the urine dribbling and passing in drops—and often he had to strain so hard

that his *sphincter ani* would give way, and he would involuntarily pass a portion of the contents of his rectum into his clothing. I put him on the table this afternoon and, after thoroughly etherizing him, I attempted to pass a No. 2 conical bougie and failed. I then tried several larger sizes and finally took the filiform instrument belonging to Gouley's divulsor and failed with that. I kept up my efforts for more than thirty minutes, but utterly failed. I was about to abandon any further attempt, and to suggest external perineal urethrotomy to my patient, when I thought of my first case. I introduced a No. 6 silver catheter down to the stricture, and then taking a hard rubber syringe with a conical nozzle which fitted neatly into the catheter, I filled it with water, and, holding the urethra tightly around the catheter I forced the water through the catheter into the bladder. After doing this, forcibly and rapidly, two or three times, I then followed the passage of the water by gently pressing the end of the catheter toward the space between the thighs. *The catheter passed into the bladder!* I withdrew it and then passed Gouley's divulsor and divulsed the stricture. I then passed bougies Nos. 16 and 18 (American size) in succession, and then passed a No. 14 soft rubber catheter which I secured in place and left it there. He is sleeping sweetly under a quarter-grain hypodermic injection of morphia sulph. at this writing, and I hope to send him home well and happy before many days.

STATE CONTROL OF MEDICAL EDUCATION AND PRACTICE.—That this subject is one of practical interest and importance not only to medical profession but also to *the people* is apparent to every one.

The Physician's Magazine has undertaken a compilation of the laws now in force with regard to the subject, and has addressed a letter to the attorney-general of each state for the purpose of securing an authoritative statement, and expects to be able to give an abstract of the various laws in its next quarterly issue.

An endeavor is also made to secure, through the Secretary of State of the United States, a presentation of existing legislation on this subject in foreign countries.

The publishers of that journal (Foote & Swift, 1539 Chestnut St., Philadelphia) will probably also publish the same matter in pamphlet or book form, as "A Handbook on Domestic and Foreign Laws on State Control of Medical Education and Practice."

EDITORIAL.

WHERE SHALL I LOCATE?

Already in the minds of several hundred young men, just on the eve of graduation from medical colleges in the different leading cities of our country, is the question which we have propounded in our title, a most absorbing and interesting one. Some will be influenced by one consideration, and others by a different one. Some will decide on the location which offers promise of soonest affording a maintenance, some on that which gives the best opportunities for professional growth and advancement; others again will devote their lives to the place which seems to give the widest field for usefulness to their fellows.

Several articles have appeared recently with reference to locations in foreign countries. One letter written from Seoul, Corea, to the *New York Medical Record*, Dec. 12, 1885, has seemed to us of unusual interest in this connection, and we will call the attention of our readers to some of the facts which it presents, hoping that they may be the means of directing some young man to a wider field of usefulness than he would find readily here.

Dr. Allen says in the letter referred to, that there is only "a handful of physicians at present ministering to the 350,000,000 Chinese. * * To any who may be moved by a missionary spirit, coupled with a love for their profession and a desire to be foremost in imparting its blessings to those who have it not, my remarks will apply. None without such motives need consider the work."

Referring only to the temporal inducements to such a work, he says: "In the first place the need is very great, and the missionary doctor has the consciousness of filling a long-felt want, which is more than he would probably be conscious of in work at home.

His opportunities for gaining a wide medical and surgical experience are unparalleled. He has unlimited opportunities for continuing his scientific studies in interesting and unexplored fields, and of becoming an authority in various lines of research."

He says that socially the position of a doctor in the East is a very pleasant one; for he is likely to be on friendly or even intimate terms with the high officials both of the country in which he resides, and with consular and diplomatic, naval and military officers of his own and other foreign countries, as well as with the missionaries, who are almost always intelligent and cultured people.

He is expected to live as a gentleman. He must be well housed and clothed and fed, "as he is too expensive an article to be lost after going to the expense of sending him abroad, and supporting him while he gets the language." "Servants are so cheap and good, and his time is so precious, that it would be folly for him to waste it in menial service."

He calls attention also to the changes which have taken place all through the East of late years, how little select communities of English speaking residents, with stores, telegraph and newspapers, are to be found in many of the larger cities of China where foreign residents come to feel so contented as even to prefer their life there to that in this country.

"The qualifications necessary for the medical missionary work are health of body and mind, a cheerful spirit, good common sense and judgment, a thorough education and considerable practical experience, together with earnest sympathy with the work and consecration to it. It is very unwise for a young man to come to the East, direct from school, without any real practical knowledge. He may be at once called to treat some important personage, where he will feel his defects most keenly, and may do something rashly that will greatly injure himself and his associates. If this be not the case, he will, in all probability, be crowded with patients of a lower order; and what can a young man, with no experience, and a head

full of confused ideas, do with twenty to one hundred patients a day? He will profit by it in time, but it is a hard experience both for himself and his patients. For this work a man should have at least a year's experience in a first class hospital, or its equivalent of outside practice. To such the way is clear, and the East will accommodate all who may come."

NEW URINARY REACTION AND TEST.

At the November 6 meeting of the Practitioners' Society, of New York, Dr. C. L. Dana described a new urinary reaction and test which was first suggested by Prof. Ehrlich, of Berlin, as of service with regard to diagnosis and prognosis of certain febrile diseases. (Medical Record, Dec. 5, 1885.)

Aniline ($C_6 H_7 N$) mixed with nitrous acid produces a series of peculiar bodies known as the "diazor-compounds." These unite with a large series of bodies, especially of the aromatic group, forming colored compounds. To a saturated solution of sulfanilin acid in acidulated water Ehrlich adds nitrous acid forming a mixture containing diazor compounds. The addition of such mixture to urine, the whole being then neutralized with ammonia, causes certain peculiar color reactions which Ehrlich believes to have diagnostic and prognostic value in certain febrile conditions.

Dr. Dana has been experimenting for the last two years in this direction and believes the tests to be both interesting and of practical value. He states that the reaction appears: 1. Never in the urine of the healthy. 2. Never in the urine of the afebrile, except in rare cases of progressive heart failure, chronic hepatitis, carcinoma, leukemia, malarial cachexia, senile marasmus, cold abscess. 3. Very rarely in rheumatism, meningitis, erysipelas. 4. Oftener, but still rarely, in bad cases of pneumonia, searlatina, diphtheria. 5. Almost constantly in measles, typhus, typhoid, and very often in rapidly progressive phthisis. It is of value, therefore, in dis-

tinguishing typhus or typhoid from malarial, tubercular, or syphilitic fever, measles from roetheln or other eruptive fever, etc.

Ehrlich applies the test as follows. He prepares three solutions:

℞ Aquæ, - - - - - 100.
Acid. mur. concent., - - - - 5.
Sulfanilin acid, q. s. ad sat. - - -
M. Sig. "Sol. A."

℞ Sodii nitrit., - - - - - 0.1.
Aquæ, - - - - - 20 0.
M. Sig. "Sol. B."

℞ Sol. A., - - - - - 50.
Sol. B., - - - - - - 1.2.
M. Sig. Mixture for use, "Sol. C."

The first two solutions keep well in cold weather. The mixture does not keep well and should be made fresh each time that it is to be used as a test.

To a test tube one-third full of the suspected urine, add an equal amount of Sol. C. This will cause a slight yellow discoloration. Then add stronger aqua ammoniæ in quantity sufficient to alkalinize the solution (℥i-ij). This will cause a beautiful reddish color in normal, afebrile urine, and after standing for twenty-four hours a deposit (of phosphates) is seen of a natural light gray color.

If the urine presents the diazor-benzol reaction, as in the diseases mentioned, then after adding the mixture "C," the color is darker and has a purplish tinge; and the phosphatic deposit after twenty-four hours is colored a dark olive green.

Dr. Dana states that he has seen this colored deposit only in typhoid fever, measles, and once in a badly complicated case of pneumonia.

An absolute essential for the success of this test is that the materials used be fresh and pure, and that fresh specimens of urine be examined.

STILL-BORN CHILD RESUSCITATED FORTY-FIVE MINUTES AFTER BIRTH BY ARTIFICIAL RESPIRATION.

In our last issue we called attention to Schultz's method of artificial respiration in the apparently dead-born child. In the *Lyon Médicale*, Dec. 20, 1885, appears a report by Dr. J. Rendu of a case in which after a rather tedious labor the child was born apparently dead. At six o'clock the sounds of the fetal heart were regular and strong: at 6:20 the heart sounds were slower and less distinct: at 6:30 the sounds had ceased. Forceps were at once applied, and delivery was effected promptly and easily. The child gave no evidence whatever of life. It had a cadaveric pallor, and its pendant limbs offered no resistance. There was not the slightest respiration nor could any sound of cardiac movement be heard. Yet no severe compression from forceps had occurred, nor was there any apparent injury of any sort to account for this condition. Mouth to mouth insufflation only served to distend the stomach. Immersion into warm water, frictions with alcohol, dropping water upon the chest, all were tried in vain.

The infant was then placed on a table and a tube (Depaul's) was introduced into the larynx. By this means, dilatation of the chest was secured, and alternating this dilatation with manual compression, very efficient artificial respiration was carried on for some minutes before any spontaneous effort at respiration was made by the child. This first evidence of life was manifested forty-five minutes after the birth of the child. Several minutes intervened before another voluntary effort was made, and the same again before the third. In this last interval pulsation became apparent at the epigastrium and soon the heart action became natural. It was another hour before the surface assumed a natural color and movements of the limbs were made. Two hours longer passed before respiration became free and natural.

The author draws three lessons from the experience of this case:

1. It is important in any case of prolonged or tedious labor to examine by auscultation from time to time the condition of the fetal circulation in order that assistance may not be long delayed if this be in any way interfered with.

2. When an infant is born apparently dead, if there is no apparent sufficient cause to explain this, it is important not to be too soon discouraged in the effort to resuscitate it, but to persevere for twenty, thirty or forty minutes or even more.

3. One should always when attending a woman in labor be provided with a suitable tube for this purpose, and, as the operation of introducing such a tube into the larynx of a new-born infant is not without difficulty, practice upon the cadaver should form part of the training of medical students.

H. H. Hanson reports a method of inducing artificial respiration in a still-born infant which differs from any that we have heretofore seen described, and has the advantage (?) of requiring less manipulative dexterity than that of introducing a curved tube through the rima glottidis. (*Bost. Med. Surg. Jour.* Feb. 4, 1886.)

Having been called to a case of labor which had been in the hands of midwives for three days, he found that the head of the child had been born about thirty minutes before his arrival. No pulsation of the fontanelles was observable and the face was livid. He succeeded by rotating the shoulders into position and introducing the hook of a Hodge forceps into the axilla, in promptly completing the delivery.

Failing to resuscitate the child by any of the customary measures, including the use of artificial respiration for thirty-five minutes, he was about to desist from his efforts when he bethonght him of a trocar and cannula in his intrument case which he had used for tapping a hydrocele. Placing a round stick under the shoulders so as to throw back the head of the child, he plunged the trocar and cannula into the trachea and thoroughly inflated the lungs, then compressing the thorax and causing expiration. After repeating this maneuvre for about fifteen minutes there were faint evidences of

effort for voluntary respiration which was soon fully established. The cannula was then withdrawn; a suture closed the opening made by the trocar, and a compress wet with cold water was applied. The child made a good recovery.

CHLORAL AND PARALDEHYDE.

Prof. Dujardin-Beaumetz, in a paper recently (Dec. 1885) published in the *Therapeutic Gazette*, discusses hypnotic drugs, and particularly the two above named.

True hypnotics, according to his definition, are drugs "which produce sleep by anemiating the cerebro-spinal axis."

That chloral is a true hypnotic is proven by the clinical observation that it causes sleep, and by experiments by Hammond and others which show that it causes anemia of the brain.

In addition to its hypnotic power, he observes that it is a cardiac poison in large doses, and that it is an irritant to the stomach to such a degree as to require liberal dilution in administering the drug. Incidentally he mentions that he has found it advantageous to use milk, with or without the addition of an egg, as a vehicle for the administration of chloral. He finds the gastric disturbances produced by the excessive use of chloral are essentially the same as those which are caused by alcohol.

These three chief effects of chloral, viz., its hypnotic action, its action on the heart, and its irritant action upon the stomach, he says, should form our guide in the therapeutic exhibition of the drug. This will be found specially available in the treatment of all pyrexias of a congestive form, "also in typhoid fever, in pneumonia, in alcoholic delirium." "In cases of rebellious insomnia in neuropathic patients, chloral is the hypnotic to choose." But it is to be interdicted to patients with heart disease, especially aortic trouble. It is to be avoided with gastric dyspepsias; and on account of the burning sensation at the back of the throat, caused in swallowing chloral solutions, it is difficult to administer chloral by

the mouth in cases of disease of the larynx or pharynx, though, in such cases, it may be administered by enema.

Chloral acts not by decomposition into formic acid and chloroform in the blood, as taught by Personne and others, but by peculiar properties of its own, acting directly upon the nervous elements of the brain and cord. This view Prof. Dujardin-Beaumetz holds, is sustained by experiments which he made some years ago in regard to that point.

In strychnine poisoning, delirium tremens, and in uremic poisoning of eclamptic form, chloral is a valuable remedy; but our author regards it here as inferior to paraldehyde.

This latter drug is a much more recent addition to our materia medica, having been first introduced to the profession in 1883 by Cervello.

Experimental studies show that paraldehyde affects the cerebrum, the spinal cord and the bulbus, successively abolishing the reflexes, causing anesthesia and sleep by anemiating the brain and cord. It is eliminated almost exclusively by the lungs, giving to the breath of patients who have taken large doses of paraldehyde (forty-five to sixty grains) the repulsive odor of persons addicted to alcoholic drinks.

Paraldehyde has been found to have a very pronounced antagonism to strychnia.

Returning to the comparison of the two drugs under consideration, the author finds that paraldehyde is superior to chloral in the following particulars: It is less irritating to stomach and pharynx; it is not a cardiac poison; and it is more effective in strychnia poisoning. In nervous insomnia, especially when produced by abuse of alcohol paraldehyde is much superior to chloral. When due to pain, paraldehyde will fail to produce as satisfactory an effect as chloral and especially opium, as the first drug has very slight power to control pain. In various forms of mental alienation and cerebral diseases, convulsive neuroses and hysteria, paraldehyde has been found very serviceable.

As to the mode of administering paraldehyde, the following formulæ, proposed by Yoon are commended by Dujardin-Beaumetz:

The first is for a simple potion:

℞ Paraldehydi, - - - - - - ℥ss.
Aquæ camphoræ, - - - - - ℥ij, ℥ijss.
Tr. vanillæ gtt., - - xx.
Syr. prun. Virg., - - - - - - ℥j.
M. Sig. Tablespoonful contains fifteen grains paraldehyde.

The second is for an elixir:

℞ Paraldehydi, - - - - - - ℥ijss.
Spts. rectificat., (90°) - - - - ℥j, ℥ivss.
Tr. vanillæ, - - - - - - ℥ss.
Aquæ, - - - - - - - ℥j.
Syr. simp., - - - - - - - ℥ij.
M. Tablespoonful contains fifteen grains of paraldehyde.

In his own practice he generally uses a simple solution of paraldehyde, in water of such strength that a tablespoonful contains fifteen grains of that drug. This he administers in conjunction with some form of liquor, rum, whiskey, etc., which he finds to best get rid of the unpleasant taste and odor of the drug, which resembles that of a tippler's breath.

It may be given in the form of an enema, and is found by Kéraval and Nerkam to be effective in smaller doses than when given by the mouth.

The effective dose to secure sleep, he says, is from thirty to forty-five grains at once, which it is generally not necessary to repeat.

SANGUINARIA CANADENSIS.

L. B. Anderson after thirty years use of this drug esteems it more highly than any other one agent of the materia medica. In a paper in the *Therapeutic Gazette*, Dec. 1885, he writes at some length concerning it.

As to its *modus operandi*, he says that it causes an increased secretion from the respiratory mucous membranes and more or less also from other mucous surfaces, as evidenced by its sanative effect where there is obstruction of the hepatic ducts, and a dry condition gastric and intestinal mucous membranes. It seems to exert a special influence upon vaso-motor nerves controlling the capillary circulation in the mucous membranes and upon their trophic nerves as well.

Among its therapeutic uses he mentions the effect of a full dose at bed time in an incipient catarrh when it will often effect such rapid and complete resolution that when arising in the morning all unpleasant symptoms will have disappeared. When pharyngeal inflammation has become so intense as to cause a rapid exosmosis and organization of fibrin, forming a false membrane, sanguinaria will restore the circulation, arrest further exudation, cut off nutrition of the false membrane and cause it to die and slough off.

He finds it a valuable remedy in the treatment of tubercular consumption where it modifies the circulation in the hectic condition, promotes free secretion of mucus from the bronchi and duodenum, relieving the lung pressure and causing free elimination of bile.

He has treated many cases of phthisis with a combination of equal parts of tincture of sanguinaria and fluid extract of cimicifuga racemosa, twenty drops of the mixture in syrup every two or four hours, using at the same time the compound fluid extract of Indian sarsaparilla, and with better results, he thinks, than he has obtained by any other line of treatment. He keeps the chest irritated with tartar-emetic ointment to subdue inflammatory complications. The sanguinaria and cimicifuga promote expectoration and moderate the action of the heart, and thus diminish pulmonary congestion, while the compound fluid extract promotes digestion, gives tone to the organic nerve centres, and stimulates the action of the absorbents.

He does not like the official preparation of the drug. He has found that the tincture will not retain its properties long, and should therefore be freshly prepared or combined with syrup.

The root should be procured as early in the season as possible and carefully washed at once. When intended for immediate use four ounces of the fresh root should be placed in a quart-bottle of diluted alcohol, kept in a warm place and shaken frequently, when it will be ready for use in two or three days. When the dry root is to be used, four ounces should be put in a quart-bottle and enough boiling water added to cover the pieces which will fill the bottle about half full. After standing for twelve hours in a warm place the bottle is to be filled with dilute alcohol and the whole digested for a few days with frequent shaking. Then it should be strained off for use. If to be preserved for any length of time, he adds three parts of syrup to one of the tincture and a teaspoonful is the dose for an adult.

Dr. Anderson quotes the observations of others with regard to the use of this drug, fully supporting his own high estimate of its efficacy in influenza, croup, bronchitis, and pneumonia.

Mortality Statistics of St. Louis in 1885.—The total number of deaths in the city in 1885 was 7,490, being 397 less than in 1884. The annual death-rate per 1,000, the population being estimated at 400,000, was 18.72.

Total deaths from zymotic diseases numbered 1999; among these 441 were due to diarrheal affections, 372 to diphtheria, 263 to malarial fevers, and 125 to typhoid fever.

Total deaths from constitutional diseases were 1510, including 888 from phthisis pulmonum, and 304 from tabes mesenterica and scrofula, and 152 from cancer.

The total deaths at ages less than five years numbered 3090, or 41.2 per cent of the total deaths at all ages, a remarkably low percentage for a large city.

A noticeable fact is that 9906 birth were reported during the year. This is worthy of note for two reasons: first, it shows a satisfactory state of things from the standpoint of the vital statistician, to find that the births exceed the deaths in such a degree; and it demonstrates that more care is taken by physicians and midwives to secure accurate records in this regard.

BOOK REVIEWS AND NOTICES.

The Science and Art of Midwifery. By Wm. T. Lusk, A. M., M. D., etc. New Edition, revised and enlarged. With Numerous Illustrations. *New York: D. Appleton & Co.*, 1885. 8vo.; pp. 763, cloth; $5.00; sheep, $6.00. (St. Louis. Jas. H. Chambers & Co.)

Though only four years have elapsed since the first appearance of Prof. Lusk's treatise, it has already won a most enviable success, on which we most heartily congratulate the author and publishers. Recognized as a thoroughly reliable text-book by all American medical colleges, favorably received in England and wherever the English language is used, translated into French, Italian and Spanish, it must hold a leading position in this department for many years.

The new edition shows evidence of careful, painstaking work in the revision, by which, while the titles and number of the chapters have been unaltered, considerable additions have been made to the subject matter, increasing the size of the volume some seventy-five pages. Over twenty additional illustrations have been introduced, while several of the old ones have been exchanged.

One of the specially notable features of the new edition is the author's advocacy of the use of the forceps in the delivery of breech presentations. Formerly he gave the preference, in cases where instrumental interference was necessary, to the blunt hook and fillet, but now he places the forceps first. He points out the necessity that "the extraction of the child should not be made an exhibition of strength," and advocates the use of the ordinary forceps, or the axis-traction forceps, in preference to those specially devised for application to the breech, which he considers an unnecessary addition to the armamentarium. He notes the value of the galvanic current for the induction of premature labor; and in discussing the proper mode of caring for the infant prematurely born, describes Credé's hot-water cradle and Tarnier's "couveuse."

New matter of interest is found in the chapter on Cesarean section, and very much also in those on puerperal fever, which now form a complete monograph on that subject, and give very

vividly and impressively the author's views of the important advances that have been made in the treatment of puerperal patients by the introduction of antiseptics.

The work, as now presented to the profession, is admirably adapted to meet all the wants of the student and practitioner, and is in every respect thoroughly commendable.

E. M. N.

THE ESSENTIALS OF HISTOLOGY, Descriptive and Practical. For the use of Students. By E. A. SCHAEFER, F. R. S., etc. *Philadelphia: Lea Brothers & Co.*, 1885. 8vo.; pp. 245; cloth. (St. Louis: J. H. Chambers & Co.)

The author states in his preface that "this book is written with the object of supplying the student with directions for the microscopical examination of the tissues;" that "at the same time it is intended to serve as an elementary text-book of histology, comprising all the essential facts of the science, but omitting unimportant details." The object aimed at is well attained. A most important feature in a work on histology is that it should be fully illustrated. The illustrations in this volume are very satisfactory, both in number and character. A commendable feature of the text is the persistency with which the author urges upon the student the careful sketching of specimens examined.

The book is well arranged for class work, being divided conveniently into lessons. At the commencement of each lesson are given practical directions for the preparation of the specimen to be studied.

An appendix at the end of the volume gives the various methods of preserving, hardening, embedding, staining and mounting specimens, and includes a table indicating the special hardening fluid best suited to each tissue.

ACNE; its Etiology, Pathology and Treatment. A Practical Treatise based on the Study of 1500 cases of sebaceous disease. By L. DUNCAN BULKLEY, A. M., M. D., Physician to the N. Y. Skin and Cancer Hospital, etc., *New York and London: G. P. Putnam's Sons*, 1885. 8vo.; pp. 280; cloth. (St. Louis: J. H. Chambers & Co.)

In this excellent book, which may be looked upon as a companion treatise to that on Eczema by the same author, we have presented one of the most thorough and philosophical studies of acne that has appeared in any language; indeed, we know of nothing comparable to it.

At the same time we must admit that we differ very frequently from Dr. Bulkley, both in his theoretical and practical views as herein expressed. The work consists of eight chapters, including a copious bibliography, a formulary and a good index. We should heartily recommend all who desire to *know* the troublesome disease, acne, in all its aspects, to read this book. It is a credit to American dermatology. W. A. H.

Facts and Mysteries of Spiritism: learned by a seven years' experience and investigation; with a sequel. By Joseph Hartman. *Philadelphia*; *Thos. W. Hartley & Co.*, 1885. 12mo.; pp. 378; cloth.

This volume purports to be a faithful record of the experiences of the author during seven years, in which he gave much time and study to the subject of spiritism. He concludes that direct communications do take place between those now living and disembodied spirits, but that the spirits so communicating are always evil spirits or devils; and even though they assume the rôle of departed loved ones, it is only for the sake of imposing upon and gaining influence over those to whom the manifestation is made. He believes that many cases of insanity are veritable instances of demoniacal possession. Some facts which he records in his own case are of practical importance to any physician who may have such a case to treat; and though the style of the book is somewhat tedious it was perused with interest.

Transactions of the American Dermatological Association at the Ninth Annual Meeting held at Indian Harbor, Greenwich, Conn., on the 26th, 27th and 28th of August, 1885. Official Report of the Proceedings, by the Secretary, W. T. Alexander, A. M., M. D. *New York*: 1885. 8vo.; pp. 47; paper.

Inasmuch as we have already published a full account of the meeting of the American Dermatological Association, no notice of this report is necessary other than to commend the practice of publishing abstract reports of papers in connection with the discussions and allowing authors to publish papers in full in such journals as they may select.

Report of the Committee on Disinfectants of the American Public Health Association, 1885. *Baltimore:* Published for the Committee, 1885. 8vo.; pp. 137; paper.

This report embodies the results of the experiments made during the year by the special committee appointed at the St. Louis meeting of the A. P. H. A. in 1884. It is the most complete and

thorough report on the subject ever prepared, and is a credit to the committee and to the association, and will be found to be of great value to practical sanitarians. We have already given our readers abstracts of the most important papers embraced in the report as they have appeared from time to time.

CLIMATOLOGY AND MINERAL WATERS OF THE UNITED STATES. BY A. N. BELL, A.M., M. D., etc. *New York: William Wood & Co.*, 1885. 8vo.; pp. 386; cloth. (Wood's Library.)

Probably no one in the United States is better qualified than the eminent editor of *The Sanitarian* for the preparation of a volume of the character suggested by this title.

The subject of climatology is justly commanding a much larger share of professional consideration in this country than ever before; and this contribution of Dr. Bell's is a most valuable addition to its literature.

ORGANIC MATERIA MEDICA AND THERAPEUTICS. BY JAMES YOUNG SIMPSON, M. D., in accordance with the Sixth Revision of the U. S. Pharmacopeia. *New York: J. H. Vail & Co.*, 1885. 12mo.; pp. 337; cloth; $2.00.

A little handbook of the organic preparations of the pharmacopeia; giving in condensed form the name, properties and general effects of each drug. Doses are given in both the common and metric weights and measures.

It is hardly complete enough to take the place of a more thorough treatise on materia medica and therapeutics, and, having the latter, one would have little use for the smaller volume unless, perhaps, as an aid to prepare for an examination.

A MANUAL OF MICROSCOPICAL TECHNOLOGY for use in the Investigations of Medicine and Pathological Anatomy. BY DR. CARL FRIEDLAENDER. Translated with the express permission of the author from the second enlarged and corrected edition by STEPHEN YATES HOWELL, M. A., M. D., Buffalo, N. Y. *New York and London: G. P. Putnam's Sons*, 1885. 12mo.; pp. 249; cloth; $1.00. (St. Louis, J. H. Chambers & Co.)

We have recently expressed our high estimate of the value of Dr. Friedlaender's work, in noticing another translation published shortly before this one.

We note that Dr. Howell has made some considerable addition in this translation, including a section devoted to the comma bacillus and the modes of examination of this microbe, and has made frequent explanatory and suggestive notes all along through the volume.

Lectures on Diseases of the Nervous System, especially in Women. By S. Weir Mitchell. M. D., etc. Second edition, revised and enlarged. With five Plates. *Philadelphia: Lea Brothers & Co.*, 1885. 12mo.; pp. 287; cloth.

Anything from the pen of Dr. S. W. Mitchell is well worth the perusal and the careful consideration of any one into whose hands it may fall. This little volume, though making no claim to exhaustiveness, is a practical and valuable study of that class of nervous manifestations, commonly known as hysteria, with an account of Dr. Mitchell's method of treatment.

Persistence of a Patent Ductus Arteriosus in a Woman aged Fifty-one Years.—The persistence of an open ductus arteriosus is a rare survival of the fetal circulation. In the *Gazette Hebdomadaire* is reported a case in which the dilated pulmonary artery communicated through its left branch directly with the aorta, the trunk of the duct having disappeared. The opening exhibited a small valve upon the right of its circumference. The patient, a woman aged 51 years, entered the hospital in a state of marked asystolie. She was emaciated, extremely pallid and cachectic; subject to palpitations upon a violent movement, and to fainting. But on the whole had suffered very little from the malformation. Hypertrophy of the heart was discovered, apex beat in the fifth intercostal space and beyond the line of the nipple; systolic murmur having two points of chief intensity, one near the apex, the other at the aortic opening. The woman died about a month after admission, from hypostatic pneumonia. In Virchow's Archives (Vol. 202, 1885) Prof. Gruber of St. Petersburg describes an anomaly somewhat analogous in respect to a mixed blood circulation in the adult. The right lung had three lobes and three emissary veins, the one from the upper lobe opening into the superior vena cava just below the azygos vein; the other two opened as usual into the left auricle by separate mouths.

Odorless Iodoform.—M. Gilette gives the following formula:

Iodoform,	30	grammes.
Pulv. carbonis,	60	"
Quininæ sulph.,	10	"
Ess. menthæ,	1	"

Lyon Med., Nov. 29, 1885.

REPORTS ON PROGRESS.

MEDICINE AND THERAPEUTICS.

Prognosis in Bright's Disease.—AUSTIN FLINT, in a paper read before the N. Y. County Med. Assoc. Nov. 10, 1885, considered at length some of the elements of the prognosis of Bright's disease, and ends his paper with the following recapitulation:

1. Acute Bright's Disease, as a rule, does not tend to a fatal result, nor to eventuate in a chronic affection.

2. A sub-acute diffuse nephritis having the same seat and character as acute Bright's disease, exclusive of acuteness, occurs not only after scarlet fever and other infectious diseases, but irrespective of these. Occurring in other pathological connections, or as a primary affection, it is liable to be overlooked, and, if recognized, it is liable to be mistaken for a chronic form of Bright's disease.

3. Acute Bright's disease or a sub-acute diffuse nephritis not infrequently occurs as an intercurrent affection in the course of Bright's disease.

4. A susceptibility to the causes of inflammation of the uriniferous tubes, irrespective of the existence of chronic Bright's disease, is to be recognized as an individual peculiarity.

5. Chronic Bright's disease may exist as a latent affection for an indefinite period, provided the damage to the kidneys is no more than an equivalent to the loss of one of these organs and provided the functions of the other organs of the body are well performed, and provided the laws of health are observed. The disease may be well tolerated so long as the renal affection does not progress and the accessory conditions are favorable.

6. The adequacy of the functions of the kidneys has relation chiefly to the amount of excrementitious elimination of these organs, and this amount may be determined with sufficient exactness by ascertaining the specific gravity of the urine and the quantity in a given time. If there be not inadequacy, the treatment by diuretics, hydragogues and sudorifics is not only uncalled for but hurtful.

7. The danger from the accumulation of the constituents of the

urine in the blood is not in all cases determinable with accuracy by ascertaining the amount of renal inadequacy, owing to variations in the efficiency of vicarious elimination, and in the tolerance from habit of these constituents.

8. Uremic coma, occurring in cases of chronic Bright's disease, may be incident to an intercurrent temporary nephritic inflammation or to accessory conditions, so that if impending danger can be averted, restoration to the state of health which existed prior to its occurrence may be hoped for. This statement applies also to acute pulmonary edema.

9. Renal asthma is generally, if not invariably, a fatal prognostic. *Jour. of Am. Med. Assoc.*, Jan. 9, 1886.

Angina Pectoris.—Huchard published last year a valuable essay in the *Journal de Médicin* on angina pectoris. In a series of autopsies upon patients dead from this disease, the pathological appearances were such as to convince the author that the views of Jenner and Parry, advanced in the latter part of the last century, were correct and that the paroxysm is the result not of a neuropathic condition but of an arterial affection. In every case he found ossification and occasionally obliteration of the coronary arteries, causing cardiac ischemia. He also found numerous cases of cardiac neuritis which had not been in any way associated with original symptoms.

These observations demonstrate the uselessness of remedies which act simply upon the nervous system for the treatment of true angina. He says that the bromides have never cured any but the false anginas, which often disappear without any treatment, and are cured by the suppression of the numerous causes which produce them.

Huchard's treatment of true angina consists principally in the administration of iodides, which are so effective in the treatment of affections of the arterial system. He gives the iodide of potassium or preferably, iodide of sodium, in doses of fifteen to thirty grains daily for months or even years, with the effect of diminishing the frequency and intensity of the original paroxysms, and finally, of causing their entire disappearance. He records the cure of twenty cases, a larger number of cures of the true angina than ever reported before by any clinician.—*Therap. Gaz.*, Dec., 1885.

Dosage of Nux Vomica.—J. H. Musser has tested quite extensively the dosage of nux vomica as affected by age. He concludes that:

1. The effects of nux vomica are in inverse proportion to the age of the patient; the susceptibility increases with the age.

2. The usual doses of the tincture indicated in the text-books are inadequate for many practical purposes, and do not represent the usual dose of strychnine.

3. It is a powerful and rather transient stimulant.

4. The best therapeutical effects can be secured in many cases only by pushing the drug almost to the physiological dose.

5. The system soon becomes accustomed to its use, and the dose must be increased.

6. The good effects in dyspepsia are largely due to its power to heighten reflex excitability.—*Therap. Gaz.*, Jan. 1886.

Diarrhea of Infants.—Prof. ZINNIS, of Athens, suggests the following measures against certain forms of diarrhea in small infants. If the dejections are green and contain numerous caseous secretions, accompanied or not by colicky pains, he gives bismuth with lime water according to the following formula:

℞ Aquæ feniculi, - - - 75 grammes (℥iiss).
Bismuthi, - - - 3 grammes (grs. xlv.
Aquæ calcis, - - - 6 grammes (℥iss).
Syr. aurant. flor., - - - 15 grammes (℥ss).
M. Sig. A teaspoonful every two hours.

Or, still better, the following potion of Hufeland.

℞ Aquæ feniculi, - - - 45 grammes (℥jss).
Syr. rhei, - - - - 15 grammes (℥ss).
Pulv. ocul. cancr., - - 1.5 grammes (℥i).
M. Sig. Teaspoonful every two hours.

When the disease is rebellious he prescribes successfully an infusion of calumba with bismuth. Infusion of calumba root is to be prepared in the proportion of fifty centigrammes to one gramme (grs. viiss—xv) of the root to seventy-five grammes (℥iiss.) of liquid.

℞ Infus. calumbæ, - - - 75 grammes, ℥ijss.
Bismuthi, - - - - 3 grammes, grs. xlv.
Syr. aurant. flor., - - - 15 grammes, ℥ss.

M. Zinnis remarks that calumba is a very precious remedy against infantile diarrhea, but on the condition that it be administered in small doses and combined with bismuth as is indicated above. He also gives often one or two spoonfuls of syrup of calumba in cases of diarrhea, repeated four times a day.—*Jour. de Med. et de Chirurg. Prat.*, Jan., 1886.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting December 28th, Dr. McPheeters in the chair.

Intra-Uterine Injections—A New Syringe.

Dr. Gehrung.—In consideration of the risks to which patients used to be exposed by intra-uterine injections, I was myself extremely opposed to the use of such injections for intra-uterine medication; but although opposed to it, I studied the reason why it was that these injections caused difficulty; why it was that the injections, practised no matter how carefully, always exposed the patient to great risks. In thinking this matter over I devised a new plan or principle upon which I think these injections could be practised, free from these difficulties and without danger, but to what extent they will hereafter be useful I cannot tell. The best way to explain this instrument will be to show how it works. We know that in injecting any fluid into the uterine cavity a certain force is used which is not always counterbalanced by the chance of efflux of the return current, so there is always a little extra force in impelling the fluid into the uterus, and consequently a surplus of fluid or air might be injected in that manner. We will let this bottle represent the uterus and we introduce this instrument. Now if you will watch this bottle and at the same time also watch the syringe, you will see the water passes slowly into the bottle; so I am washing out the uterus and all the water comes into the syringe after it has passed through the uterus. If I want to empty it out, I simply take out this cork. I have tried it practically, and it works very nicely. This is a double cannulated catheter which was used formerly for injecting the uterus. I have used one end for a suction tube. The uterus now acting as a vacuum thus connects the two tubes and in proportion as the exhaustion progresses through the tube to which the exhausting syringe is attached the fluid into

which the other cannula is inserted rises through this into and through the womb and will after washing out this organ be received into the syringe. By disconnecting the apparatus the fluid contained in it and the womb will of its own accord flow back into the supply bottle.

Dr. McPheeters.—In order to use this instrument the uterus must be made air tight?

Dr. Gehrung.—You can always use a catheter large enough to put a rubber tube around, pass it up and make it air tight.

Dr. Boisliniere.—Do you think that would do after parturition when the mouth of the womb is wide open?

Dr. Gehrung.—It is not intended for such cases; it is intended particularly for gynecological cases. I think it might be applicable in many cases in washing out cavities, such as the bladder, male and female urethra etc., because wherever there is a cavity in which you can produce a vacuum you can fill it full of water.

Dr. Coles.—Is there a safety valve there to tell when the uterus is full?

Dr. Gehrung.—That is unnecessary because there is no force used to fill the uterus, a vacuum is produced and the water is taken up until that is filled and no more. Besides the reflux is guaranteed, as I said before, by disconnecting the instrument.

Dr. McPheeters.—We sometimes have uterine colic produced I have no doubt by uterine injections.

Dr. Gehrung.—Sometimes the colic is caused by the use of too strong medicines, against which this of course, will not protect the patient; but on the other hand when irritating or styptic medicine is thrown into the uterus, this will contract and force it up into the Fallopian tubes, but by the use of this instrument all the fluid is taken out before it is removed.

Dr. Boisliniere.—Could you safely use medicated fluid to wash out the uterus with this instrument?

Dr. Gehrung.—Yes, certainly, I have done so.

Dr. Engelmann.—Dr. Gehrung is justly entitled to credit for having presented a new principle. Without saying anything in regard to its application, I confess that the principle is a novel and it seems to me a very excellent one; but as regards the application of the principle for the purpose which the doctor refers to, I should be a little doubtful as to its practicability. I have used intra-uterine injections very freely, and in a uterus post-partum or

ante-partum I have found no difficulty with proper precautions and proper instruments in making these injections; it is in the non-puerperal uterus that we have difficulty, and I think it is here that the doctor proposes to use this instrument. It certainly makes the washing out of the uterus most harmless if it can be accomplished. But I object to this particular instrument, as I do to a great many gynecological instruments which are made. Now, practically, how many uteri are there into which we could introduce this instrument?

Dr. Gehrung.—I would like to interrupt the gentleman a moment to say that this instrument is not intended for practical use, it was brought simply to illustrate the principle. This is nothing but a double catheter which I have had for years in my desk, and this is simply an aspirator that I had on hand. I merely constructed it to illustrate the idea.

Dr. Engelmann.—Precisely; it is as I presumed; it was the intention simply to demonstrate the principle which might be one applicable to a great many cavities; but the instrument would have to be greatly altered if it were to be used in a diseased uterus, and the question of making an instrument which would fit the cervical canal so tight as to make it air tight is a difficult one it seems to me. It would be a difficult matter to construct an instrument delicate enough and still have it fit the cervical canal or internal os so tightly as to make theuterine cavity air tight. I think that the instrument might be more valuable in surgery, as this is certainly an admirable method of washing out a cavity, provided we can make such cavity air tight; it is the most delicate method that has ever been presented, but, as I say, I think it will be difficult to construct an instrument sufficiently slender to serve the purpose.

Dr. Gehrung.—As I stated before, I am opposed to washing out the uterus, and, if a convert at all, I am a very recent one. I merely thought I would work out this principle and see what it was worth. The doctor says he thinks it would be difficult to make the uterus air tight. I do not think so. If we wrap cotton around a probe we can with little difficulty make it air tight. It is not such a difficult matter I think. Of course we would need tubes of several sizes, if we wanted to inject indiscriminately; but if we wanted to inject only under certain circumstances, we would not need so many tubes; but two or three sizes would probably do, if we wanted to make intra-uterine medication entirely on that principle which is something I do not by any means propose, though it might occur

if this principle becomes known—it might be that intra-uterine medication will depend greatly on that principle; the principle is intended for application in gynecological surgery and wherever else it is applicable, and I think it might be applicable in a great many surgical cases.

Tarnier's Forceps—New Model.

Dr. Engelmann.—I will again show you the annually recurring latest model of Tarnier's forceps. I have seen a great many, and I think that this is the last, and, as such, it is coming down to an ordinary forceps. This is almost precisely the forceps which I had made last year, a German obstetric forceps with a Tarnier tractor. Now the distinct principle of the Tarnier forceps has been the very strong pelvic curve. Simpson was the first to adapt the tractor to the ordinary forceps. I looked upon this as a good principle, and consequently I adapted the tractor to my ordinary forceps. Now this last model of Tarnier's forceps, which is made after Tarnier's suggestion, does away with the pelvic curve and leaves a simple long forceps; it has the long curve of some of the German forceps and the strong pelvic curve which was the distinctive mark of the original Tarnier forceps is done away with. The tractor had been demonstrated long before Tarnier's time, and this strong pelvic curve was really the characteristic feature of his forceps, now he has given this up and come down to the ordinary forceps, the correct principle; this is to adapt the tractor to the forceps we are in the habit of using. After the numerous changes, Tarnier's principle has disappeared, but he has gotten such a hold on French obstetricians that they seem to have lost sight of the fact entirely and are deluded into the belief that this is Tarnier's forceps, although it is simply the long German forceps.

Dr. Boisliniere.—I will say a few words in regard to difficult forceps operations at the superior strait, for it would be a great desideratum to have an instrument that would enable us to make traction parallel with the axis of the superior strait, in a line from the umbilicus to the coccyx of the mother. I have always considered this a great desideratum. This wish was satisfied when I became acquainted with the Pajot forceps and Pajot's method, with which we can obtain the same result as with Tarnier's. Pajot's forceps is the old German forceps, with better fenestra and a better pelvic curve. It is characterized by the pelvic curve.

It is somewhat like the Bethel forceps which has a large pelvic curve and large fenestra. The Pajot forceps has a pelvic curve and large fenestra; it has a long shank and a long handle, allowing a degree of leverage which the other forceps do not allow. With these forceps I obtained good results by grasping the head firmly in the superior strait in an oblique position; and by making a movement with the forceps downwards over the shank, holding the head down in the excavation, have delivered without making traction which would endanger the perineum. These cases are sometimes very troublesome, as the perineum is often very rigid and thick. But by using these instruments the head is directed according to this axis of the superior strait with the hand above the shank by pressing it downward, and then by a slight movement the leverage is performed on the other end by which it is guided into the excavation. The desideratum is accomplished by the Pajot and can be accomplished by the Wallace forceps as far as directing the head into the excavation is concerned. On account of the great pelvic curve of the Bethel and Wallace forceps there was danger of lacerating the perineum; Pajot has avoided this difficulty by having less pelvic curve. When Tarnier first gave the profession his forceps I thought it was very admirable for obtaining the result obtained by Pajot's instrument by downward pressure; I hailed this forceps with a great deal of satisfaction and applied them in some cases, but I soon recognized the difficulty in regard to the very great pelvic curve. It was this very pelvic curve, as Dr. Engelmann says, which gave the character to the forceps and possibly the idea of making traction according to the axis of the superior strait, but here is where the danger comes in when the head has reached the perineum.

Dr. Yarnall.—When I first saw the model of the original Tarnier's forceps at Dr. Moses' with the immense pelvic and perineal curve, I had some difficulty in understanding what he was striving at; but a short time afterwards I went to Europe, and while there I went to the instrument maker, and he displayed several new modifications of the Tarnier forceps which were a revelation to me. I remarked to the manufacturer: "The latest of these instruments involves an entirely different principle from the original?" He said, "Oh, no, I think not." I said "Yes, these traction rods are attached to the blades, whereas in the older instruments there is a needle pointer in the centre attached to the handle, and the idea is

that the needle will point to the fontanelle of the child." These were theoretical and this last devise is practical. A few days after I arrived home I had tried the latest modification of these forceps with success. One serious objection to the original Tarnier forceps was the immense perineal curve, which is, perhaps, theoretically all right, but is practically worthless, as has been often demonstrated by me. I then went to Mr. A. M. Leslie and hunted among his forceps until I found a pair of Wallace forceps, and I said to Mr. Leslie that if he could make a traction rod extend from the lower portion of the blade upon a straight line, and parallel to the handles which are straight and have no perineal curve, we would have a perfect instrument, an improvement on any I had then see. Shortly after my conversation with Leslie he got a new modification of the Tarnier forceps, and to my astonishment and surprise it was made with a perfectly straight handle, as I had suggested. So you see that step by step Tarnier has dropped the original idea, and now has a very perfect instrument, a grand improvement on the old style.

Dr. Englemann.—Dr. Yarnall is right when he says that the immense pelvic curve is theoretically correct but not practically so. The original principle of Tarnier's forceps was the great curve. This is theoretically, perhaps, very beautiful, but not practically, and it was most strikingly demonstrated in my first attempt at the application of the forceps with the head not yet fixed, entering the brim in a contracted pelvis. In the case of this patient all her previous children had been delivered after craniotomy had been performed. I induced premature delivery in the seventh month. When I came to deliver it was with considerable difficulty that I introduced the first blade of my new forceps. A midwife was engaged in the case and she had called me in. I found that the patient could not bear the introduction of the forceps; she was very nervous, had suffered a great deal in her previous labors, and I went to the other side of the bed to give her chloroform. While I was giving the anesthetic, without any particular difficulty the midwife took my long German forceps, applied them and was pulling away before I was quite aware of what was going on. The difficulty in the case was clear because craniotomy had been performed three times and premature labor twice, and still the children were born dead. She had a greatly contracted pelvis. The head was not yet in the brim when the midwife applied the long forceps with this slight but sweeping curve, without much difficulty of ap-

plication. Though the Tarnier was on hand, as I supposed the only instrument which could possibly be used, the ordinary forceps was applied before I could prepare the formidable apparatus.

Successful Forceps Delivery in Contracted Pelvis.

Dr. Lemoine.—The case which Dr. Engelmann reports of embryotomy and finally delivering the woman with forceps, recalls a case which was very interesting to me, which occurred here about six weeks ago. I was summoned to the lower part of the city by two physicians who told me that the patient had been delivered eight times. As near as I could decide by touch I don't think there was two and a half inches, certainly inside of three; the pelvis somewhat more contracted to the left side than to the right. The physicians both told me that they had each failed several times in trying to apply the forceps above the brim. I should state in this case that labor was induced prematurely just inside the eighth month, with the idea of saving the life of the child and giving the woman a living child. When I got there the woman was exhausted; she had been in labor some thirty hours, and had scarcely any pulse; it was so rapid that you could not distinguish between it and the child's. The pulse was 140 and of course we could not hear the child's pulse. She herself had no evidence of life in the child for some five or six hours, and we concluded that the child must be dead, and it was thought best to perform embryotomy. The patient was placed on the table and everything made ready for the operation, but I thought best to try and make an application of the forceps once more. I had not until that time done so. We had no forceps there except the long, straight, narrow forceps, and after considerable careful manipulation I succeeded in applying the forceps and with a good deal of traction effort delivered the child, and it was alive and is still living. The case is interesting because it shows that we may sometimes perform embryotomy when we might deliver.

New Yorker Medizinische Presse.—This is the title of a new medical journal, the only American medical jouraal published in the German language. For such a journal, ably conducted, there certainly is a wide field among the German speaking physicians of our country.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting, Dec. 15, 1885, Dr. D. V. Dean in the chair.

Dr. Bryson presented a specimen and reported a case which will be published in detail hereafter.

DIFFUSED SARCOMATA.

Dr. Williamson presented a patient with reference to whose condition different diagnoses had been made. The man, aged a little over 50, was an applicant for a pension, claiming that the trouble from which he was suffering was the result of injury received in the army. He had been struck at about the middle of the thigh with a grapeshot, was stunned and knocked from his horse. Afterwards he was on the police force here and had a fall in the street, striking his thigh upon the curbstone and hurting himself at the same place which had formerly been injured. Something over two years ago a tumor began to develop at the site of these injuries, and since then several other similar tumors had developed upon the arms, thighs and body, in size averaging, perhaps, not far from that of a hickory nut.

The tumors presented somewhat the appearance of sebaceous cysts. The general condition of the patient was unsatisfactory. Pulse 116, heart action weak and intermitting. There was no evidence of organic trouble in the heart. It was probable, he thought, that the growths were of a sarcomatous nature, but it did not seem to him that there could be any connection between the injury received from the grapeshot and the development of the tumors.

Dr. Mudd said that judging from his age, appearance and story, the tumors were probably sarcomatous in character; probably, if opportunity offered to make a full examination, it would be found that tumors were present in the abdomen, enlarged, mesenteric glands. It is not necessary that there should be much constitutional disturbance in connection with these sarcomatous tumors. He had himself recently seen a patient, twenty-two years of age, who first noticed, a year ago last October, a thickening opposite the sixth rib like a mole. He had consulted an irregular practitioner, who told him that it was an enlarged blood-vessel, and had removed it. The wound had healed kindly and quickly. The glands in the axilla had enlarged, and more recently little growths had developed all over the body. He was confined to his bed now, not from de-

bility or general disturbance of health, bnt on account of pain in the sciatic nerve. Examination per rectum revealed the presence of a tumor at the sciatic notch, the pressure of which upon the nerve was doubtless the cause of the pain. The disease had pursued a very rapid course, and was probably a case of melano-sarcoma.

In another case, a soldier, who was afterwards a letter-carrier, called on him to remove a tumor from his thigh, near the buttock. This had recurred and been removed three times. Shortly before his death there was no general emaciation, but for three months enlarged mesenteric glands could be detected. On *post-mortem* examination the liver, lungs, bronchial glands and pericardial membrane were found infiltrated with sarcomatous growths.

Local inflammatory processes, doubtless, have much to do with causation of tumors, and it was not impossible that the repeated injuries received on the thigh by this man, might have had something to do with the causation of the tumor at that site.

Dr. Dean suggested that it would be well to remove one of these tumors for microscopic examination. It would probably prove to be sarcomatous. He suspected that the primary growth was due to the injuries received. There had been a patient in the hospital with several hundred superficial tumors of a similar character.

Dr. Williamson expressed great doubt as to the possibility of holding the mechanical injury responsible for the development of the tumor. We see so many undergo serious injuries without the development of any tumor, and generally such injuries cause acute inflammation. And even if the first tumor was the result of injury, whence came the other tumors, at a distance from the first?

Dr. Mudd said that it was a common observation that innocent tumors may become malignant from some disturbance in the capsule of the tumor or from irritation of the surrounding tissues by the presence of the tumor. He thought the best surgical practice required the removal of all tumors, if accessible, even though they be simple and benign in character. The cases are by no means isolated in which tumors have remained benign, lying dormant for twenty or thirty years and then have assumed a malignant character.

Dr. Leete related a case which he saw in the Blockley Hospital in Philadelphia. The patient was a farmer who, when engaged in the early spring plowing with a strong team was thrown by the

plowshare catching in some roots, and struck his left hip upon the plow-handle. He was not disqualified from labor, but there was an enlargement and bulging of the hip over the part injured. It was pronounced by Drs. Pancoast, Norris and others to be probably a colloid cancer. He was suffering from the size of the tumor and its pressure upon vessels and nerves. An amputation was made at the hip-joint and a great mass of soft, brain-like tissue was found to have developed at the site of the injury.

Dr. Engelmann said that there were a number of well-known conditions in which injury brings about morbid growths. For example gummata are most apt to develop in parts most subject to injuries. Any small growth may be dangerous. He cited the case of a gentleman who for thirty or forty years had had a small wart on the side of his nose. He was a man of very nervous temperament and suffered from a form of mental disturbance which led him to keep continually washing his face and hands. As a result, probably of the constant or frequent irritation of this wart, a cancer had developed which finally terminated fatally.

Dr. Mudd remarked that malignant growths are apt to develop where surfaces are exposed to friction, as the lips, esophagus, opening of the rectum, the ileo-cecal valve, etc., or in gland tissues when undergoing retrograde metamorphosis. Gummata were to be regarded as being rather inflammatory growths.

Dr. Bryson accorded with Dr. Mudd. He did not think gummata occur more frequently in parts that are most subject to irritation unless we take into account the activity of the organ, as, for instance, when they appear in the liver. When they come upon the tibiæ they are preceded by periostitis. The lower part of the rectum is specially liable to injury by foreign bodies and by hardened feces, and it is just this part which is most subject to malignant disease.

Dr. Dean referring to Dr. Mudd's remarks in regard to the effect of friction, called attention to the two forms of epithelial cancer so common in chimney sweepers and smokers, where there is not only irritation from friction but from the products of combustion. He was a strong believer in the local causation of malignant disease.

A patient admitted to the hospital with fever was found to have tumors in the muscles of the left leg and right thigh, and cold abscesses. No source had as yet been discovered for them.

Fibroid Tumor—Inverted Uterus.

Dr. Dean presented a specimen with the following history. A German woman, æt. 43 years, was brought to the hospital in a very deplorable condition. She was very weak; complained of pain in the abdomen, which was about the size that would accompany the sixth month of pregnancy or a tumor. There was a strong urinous smell, resulting from *stillicidium urinæ*. On attempting to introduce a catheter the finger came in contact with a soft spongy mass which felt like a retained placenta. A large chamber full of urine was withdrawn when a tumor could be felt in the upper part of the abdomen. *Directly above the pubes the abdominal wall could be pushed inward without resistance*, but the woman was too weak for any further examination at that time. She died not long after, and a *post-mortem* examination was made. The woman was not much emaciated. The bladder was enlarged and empty. The omentum was adherent to the bladder for an extent of three inches. There was no urine in the peritoneum. The omentum was also adherent to the liver.

The uterus was completely inverted and the ovarian ligaments were drawn down into it, and the uterus itself formed a large tumor in the vagina. Attached to the inverted fundus of the uterus was a fibroid which projected beyond the vulva, the exposed part of it being in a state of disintegration and constituting the mass with which the fingers came in contact in attempting to use the catheter. About the middle of the mesentery was a tumor which contained about two ounces of a whitish substance which seemed to be the product of a cheesy necrosis of one of the lymphatic glands. No pus cells were found on microscopic examination, but fat globules in abundance. There was no evidence of any pulmonary trouble nor of syphilitic disease, unless the appearance of the liver indicated this. There were in the liver distinctly circumscribed tumors. The liver tissue on section presented the appearance of red beef with white trabeculæ and nodules containing nothing but fibrous tissue. There was no eruption nor any sign of syphilis. Her children and husband were all perfectly healthy in appearance; and he denied ever having had syphilis.

Dr. Bryson said an interesting feature of the case related to the character of the inflammation in its effect upon prognosis. When the existence of cheesy inflammation, or cheesy necrosis as the re-

sult of inflammation is distinctly made out, the prognosis is less favorable than when the inflammation is not of this character.

Dr. Briggs thought the case an interesting one as illustrating the natural history of disease, a probable attempt at spontaneous cure of fibroid of the uterus. A submucous tumor enlarging had become an irritant, had set up uterine action, and had been extruded by uterine contractions, and, the tumor not separating, the uterus had been inverted. It was a natural process of removal of uterine fibroid, arrested when half completed. If the woman had come under observation earlier, it might, perhaps, have been possible to remove the tumor and replace the uterus, and save the life of the woman, although it would have been exceedingly difficult to determine the exact point at which the écraseur should be placed to include the fibroid and exclude the uterus.

HAY-FEVER.

Dr. Mulhall read a paper on The Progress in Treatment of Hay-Fever, vid. p. 97.

Stated Meeting Jan. 12, 1886.

CLIMATIC TREATMENT OF CONSUMPTION.

Dr. Glasgow read a paper on this subject vid. p. 193.

Dr. Briggs remarked that this was a very broad subject which had been presented. He was glad to note that Dr. Glasgow emphasized the importance of keeping patients at home in certain conditions instead of sending all phthisical patients to Florida, for example, where they would be dependent for protection and care upon poor hotels or worse boarding-houses. It is not only climate that is of importance for these patients, but surroundings in other respects as well, the opportunities to obtain suitable nourishment and to secure peace of mind. It is a matter of great importance to know in just what form of consumption it is well to advise a change of climate for our patients; in what conditions there is reasonable hope of their being benefited.

While climatic treatment is valuable for some patients, it is utterly unavailing for a large proportion of cases from financial considerations. They have not the means to go away from home and have a change of climate, even if assured of the efficacy of such change.

Dr. Engelmann called attention to the remark of Dr. Glasgow with regard to the effect of altitude upon nervous diseases, viz., that high altitudes aggravate the morbid conditions due to an exalted, irritable nervous system. He said that he had had occasion repeatedly to observe the same fact in cases of patients with neurotic conditions dependent upon or associated with uterine disease. He regarded it as a matter of very considerable interest that similar observations in this respect had been made by those viewing the subject from such different standpoints.

Dr. Alleyne thought the most important factor in the treatment of phthisis was to sustain the strength and nourish the patient as thoroughly as possible. When the appetite fails, good results have been obtained by means of forced alimentation. M. Debove, especially, has advocated and practised this mode of treatment, making use of specially prepared food which he calls meat powders. He makes use of the methods known as "lavage" and "gavage," which consist in the use of a flexible esophageal tube, first to wash out the stomach and then to administer the nourishment.

Keeping a patient closely confined is not advisable. Pneumonias may be developed by this means. He also remarked, as Dr. Briggs had done, that a very considerable proportion of our phthisical patients are prevented by the expense of such changes from adopting any climatic treatment.

Dr. Nelson called attention to the treatment of pulmonary disease by the "pneumatic cabinet," as recently demonstrated before the American Climatological Association. He remarked upon the influence which such a treatment might exert as taking the place of a change in altitude for persons who were unable for any reason to remove their residence, and noted further the claims made for the value of medicated inhalations used in connection with the pneumatic differentiation.

Dr. Engelmann asked if the advantage derived from climatic treatment to phthisical patients is not the same as that to those suffering from other forms of disease, viz., the improvement of the nutrition.

Dr. Dean asked what Dr. Glasgow's experience taught with regard to the climate of Minnesota.

Dr. Glasgow said that consumption or phthisis is not a local disease. It is a disease of malnutrition, whether due to the presence

of bacilli or to an impoverishment of the lacteal fluid. It is essentially a process of decay. Improvement of the nutrition is the first and most important factor in treating this, as in other diseases where there is debility and malnutrition.

The thin, rarefied air of high altitudes dilates the air tubes and vesicles and brings into action all the lung. Life in the open air is of great value, and on this account the prognosis for men is more hopeful than for women. The former much more frequently than the latter can be induced to adopt a mode of life in connection with a change of climate which will keep them much or constantly outdoors.

In answer to Dr. Briggs' inquiry, he would say that in miliary tuberculosis he regarded it as never advisable to send a patient to the higher altitudes. The stimulating atmosphere invariably hastens a fatal issue. He would never send a patient away when an acute morbid process was going on, as evidenced by the presence of fever. When fever has disappeared and a tendency to chronicity is established, then it is the time at which advantage may be derived from a change. Cases in which the diseased processes are diffused generally through the lungs are almost necessarily fatal, and any improvement which may be manifested is only of a temporary nature. With regard to the climate of Minnesota, his recent observations had made him less favorably disposed towards that than he had been formerly, though he had seen cases much benefited by spending the summers in Minnesota and winters in Texas.

With reference to the treatment mentioned by Dr. Nelson he had little faith in it as a general treatment, though in some cases good will be derived from the treatment with the pneumatic cabinet. The system of forced alimentation he does not believe in at all.

Dr. Engelmann asked how it is that the small air tubes and vesicles are dilated by going into higher altitudes. It would seem from the tendency to hemorrhage that congestion was produced and this would tend to contract rather than dilate the air-spaces.

Dr. Glasgow replied that there was no real congestion caused in these cases. There is an excitation of the circulation throughout the system, as one passes into a rarer atmosphere, and when the blood vessels are impaired in strength hemorrhages occur. The lungs are forced to expand more fully than when the air is dense in order to take in enough air to aerate the blood.

Dr. W. G. Moore asked whether we have any thoroughly efficient therapeutic aids to nutrition. As to the pneumatic cabinet, he thought too much was claimed for it. He was disposed to look with distrust upon any agent or method of treatment which promised so much. There were several varieties of malt extracts, extracts of beef, etc., done up in fancy packages. They all have their day. Antiseptic inhalations are highly recommended by some. But the most important question as regards the treatment of phthisis seemed to him to be that first propounded. Is there any reliable agent to aid nutrition? His own experience with regard to forced alimentation was unfavorable. Another question he would like answered was whether cod-liver oil is out of date or is returning into favor.

Dr. Glasgow said he had not intended to enter upon a discussion of the therapeutics of phthisis except in reference to the single point of climatic influences. The treatment in other respects depends upon the individual case. Gastric and intestinal dyspepsia must be met and treated according to the special indications as they arise. As to cod-liver oil it is the sheet anchor in the treatment of consumption. He gives it in every case where the patient can take it. But it will not be tolerated when fever is present, when there are catarrhal conditions present, or where there is dyspepsia. This must be tested by the effects produced by its administration. He believes in it most thoroughly, and has had the best results from its use. Jaccoud, in his recent work on phthisis, commends the use of cod liver oil and glycerine. He thought that the benefit to be derived from administering malt was very questionable. The hypophosphites he had found valuable, but was disposed to think that the advantage derived from their exhibition was solely in the improvement of digestion.

Dr. Mulhall thought that the best answer to be given to the question as to the use of cod-liver oil was to be found in the book of the Doctors Williams, of London, who, father and son, had reported the results of their treatment in over 1,000 cases of phthisis occurring in their private practice. They place a higher value upon cod-liver oil than upon any other remedial agent, and they state that nine-tenths of their patients were able to take it. Dr. Hughes Bennett says that cod-liver oil has added four months to the average duration of the life of consumptives.

FOREIGN CORRESPONDENCE.

LONDON LETTER.

SIR GEORGE PAGET.—GENERAL MEDICAL COUNCIL.—SIR WILLIAM ROBERTS.—TRAINED NURSES.—MEDICAL STUDENTS.—MEDICAL WITNESS' FEES.—CORONER'S WITNESS FEES.—POLICE SURGEONS.—NEW SOUTH WALES REGULATIONS.—DR. HILL'S "PLAN OF THE CENTRAL NERVOUS SYSTEM"—CHOREA AND HYSTERIA.

LONDON, February, 1886.

The Queen has been graciously pleased to confer the honor of Knight Commander of the Order of the Bath upon Dr. George Paget, the Regius Professor of Physic, in the University of Cambridge. Sir George Paget, as he now is, is an elder brother of Sir James Paget: he was born about 1810, and was educated at Caius' College, Cambridge, and St. Bartholomew's Hospital, London. He obtained the degree of Bachelor of Medicine in 1833 and was made Doctor of Medicine in 1838; he was elected a Fellow of the Royal College of Physicians of London in the following year. He is also a Fellow of the Royal Society. He has had honorary degrees conferred upon him by the Universities of Oxford, Durham, Edinburgh and Dublin, and has also held the post of President of the General Medical Council, which is the central governing body of the profession in England. The General Medical Council is not a popular institution and very inefficiently performs the duties which devolve upon it; but of all the presidents it has ever had perhaps Sir George Paget has been the one most universally respected. He presided with firmness and dignity, and always showed that courtly and kind disposition which has been through life his prominent feature, and which has endeared him to the members of his profession in such a way and to such a degree as none of his contemporaries can ever hope to attain. There is perhaps no member of the medical profession on whom the Queen could have conferred dis-

tinction, whose selection would have given more general satisfaction than the choice of Professor Paget.

Another most eminent medical man has received a similar honor, namely Dr. William Roberts F. R. S., of the Victoria University, Manchester, so well known for his work on Renal Diseases. Dr. Roberts took his Bachelor's and Doctor's degrees at the University of London in 1851 and 1854 respectively, and he was elected a Fellow of the Royal College of Physicians in 1866. Dr. Roberts has done much to increase our knowledge of renal diseases, and in investigating the action of digestive ferments. His elevation to the honor of knighthood has been received with universal delight by all classes of society in Manchester besides being considered by the medical men as a compliment to their profession. Sir William Roberts holds the post of Professor of Clinical Medicine at Owen's College, Manchester.

The annotation, quoted in my last letter, from the *Lancet* has called forth several protests from the supporters of trained nurses. One lady nurse says it is impossible for a busy medical man to stop and instruct the wife, sisters, daughters, or servants of every patient he may have as to the carrying out of his directions and how to do all the things that are often necessary. This, to a certain extent, is a good argument, but if the present claims of the nursing profession are to be allowed, the future medical man will be as ignorant as the wives, sisters, etc., of the details of nursing and therefore unable to give instructions, and in many places it is impossible, or almost impossible, to obtain trained nurses. The correspondent to whom I have referred, admits that a medical man may be allowed to use a female catheter, but in many of the metropolitan hospitals in the present day no student is allowed to draw off a female patient's water, it is also done by the nurses, and the students have to take their chance of learning to use the female catheter when attending midwifery cases at the patients' own homes, and it is only exceptionally the case that a parturient woman requires the catheter. In other things also the nurse has entirely taken out of the hands of the student many of the manual details once recognized as included in the education of the medical man. The nurses paint all the blisters, apply the leeches, take the temperatures, examine the urine, and in many instances administer the hypodermic injections. They are often left to do the bandaging and change the dressing, indeed all the nurses are taught bandaging at the expense of the

practice which formerly belonged to the students, and the head nurses do not now, as in former days, allow the students to make poultices or see enemata given, which it is very necessary for a student to have at least seen, if he does not do the things himself. The students are now expected to restrict their knowledge to being able to explain to a patient which zone of an hepatic cell is invaded by amyloid disease and which by nutmeg degeneration, or whether a patient suffering from dropsy is blessed with a large white kidney or a small white kidney, such as is characteristic of interstitial nephritis; whether dropped wrist in lead palsy is due to a peripheral neuritis or to some change in certain of the multipolar cells in the anterior cornua of the grey matter of the cord. If a medical man when feeling the pulse of a patient thinks the temperature higher than that recorded on the chart by the nurse, and ventures to take the temperature again, the nurse is indignant; or if he asks whether a patient has a bedsore the nurse feels insulted. She mentally answers, if not actually,—that "the question of bedsores is her business." "That she is thankful to say that she knows her business." "Of course the patient has no bed sore,"—being ignorant of the fact that in some diseases, such as acute myelitis with paraplegia, bedsores may form in twenty-four hours in spite of everything that a doctor or nurse may do, and a knowledge of their early appearance is a help to diagnosis.

The regulations in this country for the payment of fees to medical witnesses are in a very unsatisfactory state, and are likely to remain so unless such questions are taken up and decided by the General Medical Council, or some similar corporation. If a medical man is summoned to give evidence before a magistrate, and the case is not committed for trial, he can receive only half a guinea a day and he has to obtain his money, when the case has been taken before any of the metropolitan courts, by applying to the Secretary of State for the Home Department at the Home Office. In that part of London which is called "the City" the medical witness is paid in addition a guinea a day for each day he is obliged to attend before the judge, and these fees are paid together with the police-court fees on the termination of the case. A medical man, if subpenaed in a criminal case, is obliged to attend and to give evidence.

In civil actions before the superior courts, a medical man may place what value he chooses upon his time and services, and can re-

fuse to attend and give evidence unless his fees are paid. If he accepts a subpena, he is bound to attend, but a subpena to appear before the superior courts is not held to have been duly served unless a minimum fee of two guineas is tendered with it. In the case of the county court and other inferior courts if the subpena is accepted without a fee, no fee can be demanded. It is no use appealing to the judge before giving evidence, as a subpena is considered as duly served if taken by the medical witness. Therefore medical men have to be very careful not to accept a subpena unless the proper fee of one guinea is at the same time offered. Many pettifogging solicitors who take up cases of injury on the chance of securing damages for their clients are very apt to try and subpena medical men without tendering the fee; and if a medical man is foolish enough to accept the subpena, it is very seldom that he gets his money. This is a disgraceful state of things to be allowed to exist, and encourages the practice among members of the legal profession of trying to take advantage of those in the medical profession. It is not always to be expected that when a medical man has a piece of paper offered to him he should at once realize the fact that it is a subpena, but if he touches it without a fee, he has no remedy but is obliged to appear and give evidence at whatever inconvenience and loss of time and money to himself.

In the coroner's court a fee of one guinea is paid for medical evidence, and if a post mortem examination is ordered by the coroner, two guineas are paid for the examination and the subsequent evidence, but if the post mortem is made in anticipation of the coroner's order and before the order has been received no fee is paid for it. And no fee is paid for post mortem examinations or evidence before a coroner, if the person the cause of whose death is being inquired into has died in a public hospital, prison or lunatic asylum. The exception of deaths occurring in these institutions was made at the time of the passing of the coroner's witnesses act in 1841, for unless such exceptions had been made there would have been at that time no chance of passing the measure. It was thought, and not very complimentarily to our profession, that if fees were allowed for the inquiries into all the deaths of persons dying in public institutions, the medical officers instead of trying to heal their patients might have been tempted to hurry their decease. Such arguments were actually brought forward in the House of Commons at the time the Coroner's Witnesses Act was

under discussion. Attempts have since been made to remedy the injustice under which resident medical officers of hospitals, etc., labor, but without any satisfactory results. Until recently the fees for inquests on paupers dying in work-house infirmaries have been paid, but some few months ago one of the metropolitan coroners refused the fee to a poor-law medical officer on the grounds that a work-house infirmary was a public institution and came under the head of the exceptions intended by the Act of Parliament. The medical officer sued the coroner for his fee in the county court, but the case was decided against him, the judge considering that a work-house infirmary was a public institution within the meaning of the section in the Act of Parliment alluded to. A case was granted for appeal. If a medical man is called on by the police to visit a sick person in a station house within the metropolitan district, he may claim the sum of three shillings and sixpence for each such visit in the day-time and the sum of seven shillings and sixpence for every visit paid between the hours of 11 P. M. and 6 A. M. Most of the police cases are in reality taken to the hospitals and there seen by the house surgeon or house physician on duty,and in many instances the regularly appointed police surgeon is paid the ordinary fee for such attendance, although the hospital officer has done the work. It would only be fair to hospital officers that they should receive the proper fees for police cases. If a medical man is called upon by the police to assist a sick person in the streets and the person so attended is unwilling or unable to pay the fee, the medical man has no remedy. A doctor may be called out of his bed in the middle of the night to attend a person on a door step incapable through drink, and receive no remuneration.

They manage these things better in our colonies. The colony of New South Wales has published a code of new regulations affecting medical attendance at lockups, and elsewhere, at the request of the police. The regulations came into force on June 10, 1885. They are as follows:

Ordinary Visits.—Legally qualified medical men will be allowed a fee of ten shillings for each visit in ordinary cases to include all necessary medicines, dressing, etc.

Minor Operations.—For minor operations, a fee of one guinea.

Capital Operations.—For capital operations the account will be paid after reference to the medical adviser of the government, if considered reasonable.

Fees at Night.—Double fees on ordinary visits will be allowed at night, i. e., between 10 P. M. and 5 A. M.

Fees for Examination and Evidence, etc.—The fee for examination and evidence in lunacy and other cases will be one guinea, and where two or more cases are heard on the same day, half fees only will be allowed after the first. The charge for attending and examining the prisoner in the lock-up will be included in the fee of one guinea.

Mileage.—Mileage from the medical man's residence to the place where the patient is seen will be allowed at the rate of five shillings per mile beyond the first up to five miles, and seven shillings per mile for each mile above five up to twenty-five, four miles by rail to be equal to one by road. Cases occurring above twenty-five miles to be submitted for the determination of the medical adviser to the Government.

Accounts.—The accounts to be rendered to the police quarterly, and to specify the dates of the service, the names of the patients, and the nature of the complaints with a special explanation justifying more than one visit to a patient in any one day.

In cases where more than one patient is medically attended during a visit to a lock-up or other place, only half fee for each visit, after the first, is to be charged, and no mileage; this is not to refer to operations.

The thesis of Dr. Hill, of Cambridge, on "The Plan of the Central Nervous System," which has been so well received in this country and in Germany, offers a new theory for the explanation of hysteria and chorea. If the ordinary mental processes, or consciousness, is capable of blocking the usual lines of conduction of nerve force so as to control reflex acts, we may suppose that by the same means we have the power of increasing and decreasing resistance in nerve fibres so as to allow an impulse at one time to travel in one direction, and at another time to take a different course. If we have this power of inserting increased resistance in certain directions so as to leave open the road along which we wish a nervous impulse to travel, we may suppose that sometimes this power is lost, and that increased resistance having been inserted in an ordinary tract cannot be removed again. Such possibly is the case in hysteria. The ordinary routes from the will to the secondary centres are blocked so that "one cannot do what one would," the impulses are diverted into other and diverse channels, and produe the

many protean results which are associated with hysteria. Viewing Dr. Michael Foster's description of a sensory nerve in the new light thrown on it by Dr. Hill, we have a very simple explanation for some of the vagaries of hysteria. Dr. Foster says: "Such evidence as we have goes to show that an appropriate stimulus of the same fibre may give rise to reflex action, or modify consciousness; and that whether the one or the other, or both events occur, depends upon the condition of the central organ, and on the relation of its several parts to the afferent nerve. The stimulation of the same nerve (and there are no positive facts which would preclude us from saying "of the same fibre") may at one moment, when the central nervous system is intact, give rise to a change of consciousness alone, without the development of any reflex action whatever, and at another moment, the cerebrum being meanwhile removed;" or, according to the new physiology, the conducting fibres to it blocked, "cause simply a reflex action." The same process of reasoning may be applied to centrifugal nerves. This power of directing volitionary impulses, that is, of inserting or decreasing resistance along the tracts required, appears to be stronger in males than in females. In the latter emotional shocks more easily block the routes ordinarily traversed by nerve impulses from the intellectual centres to the secondary centres; and in children the effect of fright so blocks the ordinary course taken by motor impulses that we get a series of exaggerated and purposeless movements. Customary tracts are not so well worn, and resistance beaten down by constant usage, in children as in adults, therefore children suffer more frequently from chorea which is also, like hysteria, much more common in females.

E. V. A.

CONCOURS FOR A PROFESSORSHIP.—The report is in circulation that the vacancy caused by the resignation by Dr. H. B. Sands, of the professorship of surgery in the N. Y. College of Physicians and Surgeons is to be filled by the result of a *concours* at which Drs. W. T. Bull, R. J. Hall and W. S. Halsted will each deliver a course of about ten lectures, after which the Faculty will select one of them as Dr. Sands' successor.

DR. J. MILNER FOTHERGILL has discontinued his correspondence with the *Philadelphia Medical Times* which has been kept up now for ten years.

TRANSLATION.

TREATMENT OF DIPHTHERIA WITH BALSAM OF PERU AND OIL OF TURPENTINE.

By Robt. Ofner

[*Translated by Dr. C. C. Stockard, Columbus, Miss.*]

In the "*Centralblatt für die gesammte Therapie*" I read a notice concerning the treatment of diphtheria by means of oil of turpentine. There were, however, only four cases reported by Dr. Bromkowsky and four by Dr. Jozefomicz. In No. 24 of Illustrirte Zeitung of Berlin is the same subject treated of and in a fuller manner than one usually finds in a paper published for entertainment. These encouraged me to give the results in more than sixty cases that I have treated in an almost similar manner since the year 1878.

At that time I was physician to a factory and general practitioner in Pohrlitz, a village in Southern Maehren. In this section occurred every possible disease and also the universally known and feared diphtheria of which Seitz in his profound work says, that it overruns everything, high up in the splendid, aromatic mountain air as well as in the marshy valley, in the proud palace as well as in the rickety log hut.

My father was also a physician, and I remember that he treated wounds almost exclusively with balsam Peru, at least where it succeeded, and I do the same though I sometimes have to change to iodoform. The tonsils in diphtheria are also wounds, and all of the medicaments generally used in treating it have no decided effect—so I took to balsam of Peru. To use for mopping the throat it is too thick so I thin it with alcohol and add oil of turpentine.

As I am, in my leisure hours, a painter also, and painters have balsam Peru and turpentine on hand, so I had too a brush with which I could pencil energetically.

The results were truly surprising. Cases over which the doctor usually shakes his head thoughtfully, recovered in three or four days without pressing symptoms, and mild cases healed not seldom after one or two moppings. I mention the house of Vogt, a rich merchant, in which diphtheria kept confusion for months, and where I made the observation that every eight days a new candidate for a mopping was brought to me. A four year old girl had the worst case, the whole throat being covered with membrane, and parts which were well cleared in the evening would by morning be white. After subsidence of the disease, squinting appeared for a short while. The disease lasted fourteen days.

A two year old girl, very stout, daughter of a teacher, Mr, Kubanek, was taken with symptoms of croup. On the second day there were dirty looking spots in the throat. It died in spite of the greatest care and attention. Shortly after I was called to a house in which was a little girl of three years, who had already been sick three days without having had anything done for her. On entering the room quite a penetrating odor greeted me. I found the whole throat breaking down. I mopped it four times a day and the child lived eight days. These two were the only patients that died. Since then I have seen only two cases in which the throat and larynx were simultaneously affected and both recovered. I do not always give medicine internally at all. If the child can gargle, which ought to be taught to every child, give chlorats of potassa as a mouth wash. Chlorate of potassa furthers the expulsion of masses of mucus, otherwise it accomplishes almost nothing.

When the membrane is tolerably large the patient very delicate, or I see that I must prescribe something, I give the following:

℞ Vitelli ovi, - - - - - - - No. j.
Aquæ, - - - - - - - - - q. s.
Pulv. Emulsionis,
Ol. Terebinth. gtt. x, - - - - - ad 2.0

Sig. One spoonful every two hours.

I am fond of prescribing turpentine in this way, and give it not only in diphtheria but also in pneumonia, gastro-intestinal catarrh, etc.

That diphtheria under this treatment will become dangerless I do not affirm, but I can say that balsam of Peru is an antidote. [*Centralblatt für die Gesammte Therapie.*]

COMMUNICATIONS.

FETUS OR TUMOR.—LAPAROTOMY.

Buffalo, Wy. Ter'y, Nov. 1885.

Editor Courier:

I was called Oct. 24 to see a woman supposed to be in confinement and had been since the 20th. I found the case, which was thirty miles from my home, in the hands of a homeopath and a midwife, who claimed to have been able to feel the fetal head and to hear the pulsation of the fetal heart. The vagina held a mass of something in the superior strait; the walls of the uterus seemed to be thickened; the os seemed to be above the pubis and pointing toward the umbilicus; and the posterior lip only could be felt by me in my examination. Every effort was made by position, instruments, etc., to bring this into the inferior strait for operation but without success, and I could not feel the fetal head or hear the fetal heart. I at once sent for assistance to Buffalo (here) with a view of operating. It was possibly a tumor, probably a dead fetus. One physician came and a further examination revealed nothing new, but it was still difficult to diagnose a tumor. As the patient was weak from constant excitement and loss of sleep, the attendants not having allowed sleep since the previous Tuesday, we gave tonics and delayed operation until the following Thursday I forgot to say that there was but two to two and a quarter inches between the rami of the ischia.

On Thursday morning accompanied by two physicians I was again present, and two and one half hours were spent in endeavoring to bring down the os and perfecting the diagnosis, but it seemed impossible to say, considering the assertions of the attending physician and midwife that the head had been felt and the labor pains marked and well defined, what it was. Abdominal section was decided upon and I operated. There was at least two inches of fat on the abdomen. The incision was made a little to the left of the median line. When the womb was reached we all

exclaimed, "a tumor;" and upon cutting into the uterine walls they were a mass of cancerous tumor, probably encephaloid. The patient seemed not to bear the operation well, and the administration of ether had to be discontinued two or three times during the operation. Exploration showed the tumor to extend up to the lower lobe of the liver, to have adhesions all about the ovary on the right side and to the intestines, and also encroaching on the left side. As the patient seemed to be sinking from exhaustion and the attachments were so extensive, it was decided to remove only the uterine portion. I removed a portion as large as my fist; had occation to ligate but two arteries during the operation, but there was a great deal of oozing, so much that I used some of Monsel's solution and hot water and thoroughly cleansed the wound. On account of the fat it was not deemed advisable to bring up the peritoneum into the tissues in closing the wound. One animal suture was placed in the uterine wounds, four deep and two superficial sutures in the external wound. Reaction was very much delayed, but was brought about by bottles of hot water and hot flannels externally, and by quinia, capsicum and ammonia every ten minutes, then every half hour, then every hour until established. The operation and full dressing occupied but half an hour. One week later I removed sutures and applied plasters. The patient eats well, sleeps well, passes urine well and at regular intervals; and the bowels were moved on the fifth day by enema contrary to instruction, but with evident relief to the patient. Temperature from 100.5° to 102°. The only unpleasant symptom is a very large amount of disagreeable pus from which I feared septicemia, but as bed sores were appearing I placed the patient on her side and the drainage was sufficient from the lower portion of the womb. The vagina is washed twice a day with carbolized water, and there is some discharge in that direction, but not much.

May not the operation cause some new condition of affairs, so that if she escapes blood poisoning there may be absorption of the tumor or sloughing sufficient to check the morbid growth? The patient was 45 years old, married twenty-seven years, no children, and the growth of tumor about eight or nine months, not more. Age, etc., and rapidity of growth would indicate malignant growth, but I have no microscope. I sent it to a friend for examination, but have not heard his report. Dr. L. Wood, of Indianapolis, visiting here, and Dr. J. H. Lott, assisted me. Is it not extraordinary in some

of its details? If it recovers will it not be still more extraordinary in its results? Now six weeks after the operation she is reported to be doing well.

Yours very truly,

John C. Watkins.

EXTERNAL VERSION.

Fairfield, Wayne Co., Ill.

Editor Courier:—In December, 1885, I was called to see Mrs. C., aged 22, in her second confinement. When I arrived at her house, she informed me that the bag of waters had broken. I made a digital examination and found her in the first stage of labor. The membrane had ruptured prematurely. The womb was very high up, almost out of my reach, though I could by external pressure with my left hand bring it down so that I could partially detect the presenting parts. The pains were light and considerable intervals occurred between them. On a second examination a little while later I could detect the ribs and intercostal spaces. The child was in a transverse position with its back anterior and its head on the right side. External examination verified my diagnosis by the shape of the womb, the long diameter of which was transverse; also by finding the head in the right side and the nates on the left. Evidently the child would have to be turned. As it was the first transverse presentation I had met in nearly ten years practice and I had no chloroform with me, I sent for chloroform and assistance. The messenger having been dispatched, I went to work to see if I could remedy the evil, though I had no idea of succeeding after the bag of waters had been ruptured so long, some three hours. After explaining everything to the lady and getting her consent to do all she could in being patient and quiet and not be scared, I proceeded to an effort to turn by external manipulation. During the intervals between the pains, standing on the right side of the patient, I placed my right hand over the child's head with the intention of pushing the head into the superior strait, and with my left hand I grasped the nates intending to bring them up toward the ensiform cartilage of the mother. After two unsuccessful attempts I changed my plan and endeavored to bring the head up to the ensiform cartilage of the mother and to push the nates into the superior

strait. As soon as the pain went off I commenced with a zigzag motion to disengage the child. Then with a steady upward pressure with the right hand and a downward pressure with the left hand I tried to bring it in unison with the axes of the superior strait. When the pains came I stopped my exertions. When they left I began again. After two unsuccessful attempts, I tried the third time and was gratified by finding I had succeeded in bringing the nates into the first position; and in an hour and a half a nice girl baby was there, alive and doing well, an hour and a half before the assistance arrived. I write this with the hope that it will encourage some physician to try external version before resorting to the internal version.

A. P. HALL.

A NEW REAGENT FOR DETECTING SUGAR IN URINE.

FRIEDHEIM, CAPE GIRARDEAU COUNTY, MO.

Dr. Crozer Griffith, of Philadelphia, calls attention in the *Medical News* to a new reagent for detecting sugar in urine, much better and more delicate, he says, than Trommer's or Boettcher's test; it will show one part of sugar in 100,000 parts of fluid. This reagens has been found out by Emil Fischer, and is named Phenylhydracin ($C_6 H_5 N H N H_2$) which with glucose produces a substance, called phenylglucazon, easily recognizable by the naked eye and still more under the microscope as consisting of long, yellow needle-shaped crystals.

To make the test, mix fifty c. c. of urine and two grams hydrochlorate of phenylhydracin with one and one-half grams of acetate of soda dissolved in twenty c. c. of water. Warm gently over a water bath, and, in ten or fifteen minutes, if sugar be present, the phenylglucozon is precipitated, usually in crystals, sometimes amorphous. Even in the latter case, some of the characteristic crystals can be found under the microscope of low power.

Up to the present time, there has been no other substance found than sugar, with which it will give the same reaction.

This preparation can be bought 100 grames for $1.50 by A. F. Kahlbaum, Chemische Fabrik, Berlin, S. O. Germany.

E. A. VOGT, M. D.

NOTES AND ITEMS.

PHILOSOPHY OF INEBRIETY.

The terrible extent of habitual drunkenness which we see over most of the civilized world is a reproach to good government and a standing menace to public order. The philosophy of inebriety lies in a nutshell. Alcohol is an irritant, narcotic poison, and in intoxicating liquors is present in such a proportion as tends to distort the mental vision, disturb the reason, and enervate the will. The great majority of drinkers, happily, are able to resist the full strength of the alcoholic invader, and though many may suffer in bodily infirmity from its ravages on the person, can stop at various stages, short of confirmed drunkenness. But vast numbers have not this power of resistance, and either from inherited alcoholism or from a transmitted feebleness of resolution, go down like chaff before the victorious progress of the foe. These fall by the operation of natural law, because they are susceptible to the benumbing influence of the poison, and are, physically speaking, truly "weak brethren." Your inebriates are the sad, though sure, outcome of your drinking customs, your ecclesiastical patronage of a narcotic poison and your legalized public temptations to indulgence. Let the community, the church and the state, once master the truth that intoxicating drinks are material poisons, affecting human beings as other poisons do, in varying degrees, according to the idiosyncracies of the individuals, and effectual remedies, social and ecclesiastical and legal, will soon be adopted, which will steadily lessen the evils arising from the common use and sale of intoxicants. Meanwhile, the afflicted through alcohol are with us, the legitimate fruits of our perilous habits, and our muddling statecraft; and as a simple matter of equity and fairness, we are bound in honor to do everything that within us lies to supply ample and rational opportunities of reformation and cure to the very feeblest of the victims of our self-indulgence and our sensibility.—Norman Kerr in *Journ. of Inebriety*, Oct. 1885.

THE POLICE POWER OF THE MISSOURI STATE BOARD OF HEALTH.

The following opinion of the Attorney General, which has already been published in some of the daily newspapers, is of sufficient importance and interest to be given here in full. [EDITOR COURIER.

JEFFERSON CITY, MO., Jan. 25.

In response to a letter from the State Board of Health requesting him to furnish the board with an opinion as to the powers and duties of the same, Attorney General Boone has written the following:

I will answer the several inquiries in the order in which they are propounded.

1. Does the power conferred by section 3 of the act creating the board and deemed essentially police in nature comprehend within its purpose and exercise the protection of the public against forms of medical fraud and charlantry practised upon the credulity, ignorance or weakness of the people of the state by those who have failed, after full opportunity to do so has been offered them, to reasonably satisfy the board as to their right or fitness to undertake and pursue the practice of meidcine and surgery under the provisions of the act to regulate medical practice, approved April 2, 1883?

My answer to this first inquiry is in the affirmative.

2. If such practice is held unlawful, should prosecutions for such offences be instituted on the charge of obtaining money under false pretenses, or specifically for failing or refusing to comply with the provisions of the practice act?

To this second question I answer that the party cannot be prosecuted for obtaining money under false pretenses in the case stated, but can be prosecuted for failing to comply with the provisions of the act referred to, or rather for violating the provisions of said act.

3. Is it competent and proper for private citizens and official bodies as medical societies or faculties, to institute and press to conclusion such proceedings?

Neither private citizens, medical bodies nor faculties nor the board can institute such proceedings. Such proceedings must be commenced and prosecuted by information or indictment.

4. How should such proceedings properly be commenced, by information or indictment?

An indictment is the better and more regular proceeding. It is not incumbent upon the State Board of Health to employ special counsel for the prosecution of cases arising out of the violations of the Board of Health and Practice acts. It is the duty of the prosecuting attorney and grand jury to see that this law is enforced in the respective counties.

5. The answer given to the fourth question disposes of the fifth inquiry.

6. The recent case of ex rel. Granville vs. State Board of Health decided by our Supreme Court decides in effect that it is a matter of discretion and judgment of the board as to whether or not they will grant a certificate upon presentation of a diploma or personal examination as the case may be.

ILLINOIS ANATOMICAL LAWS.—A law went into force July 1 in Illinois which provides as follows:

I. That superintendents of penitentiaries, houses of correction and bridewells, wardens of hospitals, insane asylums and poor-houses, coroners, sheriffs and jailers, city and county undertakers, and all other state, county, town and city officers, in whose custody the body of any deceased person, required to be buried at public expense shall be, shall give permission to any physician or surgeon (a licentiate of the State Board of Health), or any medical college or school, public or private, of any city, town or county, upon his or their request therefor to receive and remove, free of charge or expense, after having given proper notice to relatives or guardians of the deceased, the bodies of such deceased persons to be buried at public expense, to be by him or them used within the state for advancement of medical science, preference being given to medical colleges or schools, public or private, said bodies to be distributed to and among the same equitably, the number assigned to each being in proportion to the students of each college or school;

Provided, however, that if any person claiming to be, and satisfying the proper authorities that he is, kindred to the deceased, shall ask to have the body for burial, it shall be surrendered for interment; *and provided further*, that any medical college or school,

public and private, or any officers of the same, that shall receive the bodies of the deceased persons for the purpose of scientific study, under the provisions of this Act, shall furnish the same to students of medicine and surgery, who may be under their instruction, at a price not exceeding five dollars for each and every such deceased body so furnished.

II. A sufficient bond that the body or bodies shall be used only for the promotion of medical science within the state must be given, and whosoever shall sell or buy any such body or bodies, or shall traffic in the same, shall be deemed guilty of a misdemeanor, and subject to fine and imprisonment.

III. The penalty for the officer refusing to deliver the body, etc., is fixed at $50 to $100 for first offence; $100 to $500 for second offence; $500 or more, or imprisonment for six to twelve months, for third offence.

IV. It is the duty of those who receive bodies to bury or cremate the remains of all bodies after they have answered the purpose of medical science.

BEEF TEA.—DR. J. MILNER FOTHERGILL in a brief article in the *British Medical Journal*, September 5, expresses his opinion of beef tea as follows: Fashion prescribes the food of the sickroom to a large extent. Veal-broth had given way to calf's foot jelly when my professional experience first began. Then a patient who had not had calf's foot jelly had been neglected—was the verdict of the public. Now the calf can scamper about in safety; its feet are not in demand. Now it is beef tea which holds the place of honor in the sickroom. The afflicted relatives of a dying man will declare with a distinct consciousness of having discharged their duty in a credible manner, the quantity of beef, of the very best quality, which has been used to make tea for the sick man—"the very strength of the meat," they will add. Their intentions are excellent, but how about their practice? Are they or are they not talking nonsense? What food value does this vaunted beef tea possess? Answer me that, any of you who can; I will gladly be taught. As a stimulant, as a pleasant vehicle for something else, beef tea is valuable; but its food value is so small that it can scarcely be classed as a food.

I do not desire to speak disrespectfully of beef tea, nor yet of the motives of those who carefully prepare it, believing it to be a

mighty force. I only maintain that to feed—no, that is not the word—to give a patient beef tea as food, is to give him a stone when he asks for bread. What that beef tea needs is grape sugar. How can this be added? In all our prepared foods, known generally as "baby foods," starch has been converted into the soluble dextrine or maltose; the one grape-sugar, the other only requiring a touch of saliva to complete its conversion. Add some of this material to the beef tea, and then food is supplied to the famishing system. Starch that has long been exposed to heat (either by the baking process or the malting process) is converted more or less completely, into grape-sugar. The saliva of a sick person is enfeebled—but on this matter we have only broad impressions, and more precise information is desirable—and so carbohydrates should be provided which do not require insalivation for their solution, being already soluble. Such carbohydrates are now to hand. * * * There are malt extracts containing not only soluble carbohydrates but also some soluble albuminoids and phosphatic salts, ground malt of like composition, also grape-sugar itself. The latter is not too sweet to pall upon the palate when added to beef tea or other meat broth.

Rules for Examination and Use of the Urinometer.—Somewhat extended observation of the practice of others leads to the conclusion that the following paragraphs from Prof. Draper's "Medical Physics" will not be without interest and value to a good many of our readers.

1. Do not purchase an instrument without examining it with water to see if the 0° of the scale is correct. If this is in error, it is evident that as so little pains has been taken to have the initial point exact, no reliance is to be placed on the rest of the graduation. It is true that the zero may be right, and yet the rest of the scale incorrect. Any error of that description can only be determined by comparison with a standard instrument, the accuracy of which has been assured by the specific gravity bottle.

2. In pouring the liquid into the cylinder hold it obliquely, at an angle of about 45°. The fluid will then flow gently down the side of the cylinder without forming a foam. The presence of foam or of bubbles seriously interferes with the reading of the cale. It may be removed by a drop of ether, but it is better to avoid its formation.

3. Stand with the back to the window, or other source of light, that the scale may be as brightly illuminated as possible, and also that the eyes may be protected from the light.

4. The urinometer having been placed in the liquid, and there being sufficient fluid to float it freely, the cylinder is then to be held by the top between the thumb and index finger. It should be held loosely, that it may hang perpendicularly like a plummet. By this device the tendency of the urinometer to become attached to the sides of the vessel will be lessened, and greater facility for correct reading attained.

5. The level of the fluid in the cylinder must be brought to the same level as the eye. The horizontal line is easily obtained with sufficient accuracy by selecting some object or point on the opposite side of the room, at the same height as the eye of the reader. The level of the fluid is then brought to this line.

6. The fluid in the cylinder will be seen to rise as it approaches its sides. The liquid, therefore, has a curved instead of a plane surface. To avoid the error caused thereby, the reading should always be made where the lower convexity of the curve cuts the scale of the urinometer. It is also well to form the habit of counting backwards, that is, in reading a gravity of 1017°, for example, read from 1020° upwards, rather than from 1015° downwards. The value of this device will be quickly seen in practical working.

7. There is always a tendency to error from the urinometer hugging the sides of the cylinder. To avoid this at least three readings should be made, the urinometer being gently touched at its top between each reading to make it vibrate and break up any adhesions it may have formed to the wall of the cylinder.

THE SOUTHERN CALIFORNIA PRACTITIONER is a new medical journal whose editors propose to investigate and discuss the climatic peculiarities of that part of our country with the great inland plateau, embracing Arizona, New Mexico, etc. We take pleasure in welcoming it to a place among our exchanges.

DRUGS AND MEDICINES OF NORTH AMERICA.—No. 8 of this valuable quarterly contains the article on Cimicifuga Racemosa. The Lloyd brothers are giving us some excellent and careful work in this publication.

ERRATUM.—In January COURIER, p. 20, line 9, for "not unreasonable and justifiable" read "unreasonable and not justifiable."

ST. LOUIS
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ORIGINAL ARTICLES.

ANTISEPTIC VAGINAL INJECTIONS IN THE PARTURIENT WOMAN.

BY JAMES M. SWETNAM, M. D., OMAHA, NEB.

[Read before the Douglas County Medical Society, Tuesday, Feb. 2, 1886.]

PARTURITION is a natural and physiological process and not pathological in any sense of the word.

True it is, that there are often grave accidents that occur during the birth of the child, under which head we would include severe lacerations of the perineum or of the cervix, or rupture of the vagina or uterus, each of which would be classified as traumatic and might require immediate surgical interference.

This paper does not contemplate any of these accidents, but cases of simple, natural labor, of course not excluding slight lacerations and the ordinary abrasions, the tendency of which is, in every healthy mother, to spontaneous and speedy recovery. Whatever we can do to hasten this happy consummation is our duty, and it is also our duty to refrain from everything which we have reason to believe may in any manner retard that recovery.

Vaginal injections, aside from their promotion of cleanliness, are used in ordinary cases of parturition as a prophylactic against disease.

Are they a prophylactic as they have been used for the last fifteen years? or should they be used as a routine practice in every case of labor?

Up to within a few years it has been the custom in all the general lying-in hospitals, and in the private practice of a large number of eminent physicians, to use solutions of carbolic acid as an antiseptic precaution in every case of labor, some of them beginning these injections as soon as the labor pains begin, and continuing them every four hours until the birth of the child, and for a number of days after, under the impression that the acid, as used, was a powerful germicide, and thus prevented septic poisoning, or stopped it if it had already begun. These injections were recommended and insisted upon, in the case of every healthy mother, as often as every eight hours for ten days; and it was believed and earnestly taught that where this was neglected the dangers from septic poisoning were greatly increased.

Later investigations have proven that the custom was based upon a false theory; that carbolic acid used in the strength in which it is safe and proper to use it, is not a germicide, and that the custom, so far as the reasons for which it was a custom were concerned, was to say the least useless.

These germs, microbes, micrococci, or whatever you please to call them, live in a solution of carbolic acid anything less than five per cent, and thrive in solutions of the strength which were generally used in these injections.

This has been demonstrated to the satisfaction of fair-minded inquirers, inquirers after truth, such as are uninfluenced by preconceived opinions.

From the above we must conclude that a solution of carbolic acid to be in any sense a germicide must have a strength of at least five per cent, one part in twenty, one dram of carbolic acid to two and a half ounces of water.

Is there a physician here bold enough or reckless enough to throw such a solution into the vagina of his patient every eight hours?

These statements being admitted, for all these years the carbolic injections have wholly failed in the purpose for which they were given, and are not prophylactic.

But says one, we have discarded carbolic acid and taken up mercuric chloride which we know to be a germicide. Have we any more faith in that than we had five years ago in carbolic acid? Is there no danger, no ill effect likely to arise from its constant and routine use? Have we not well authenticated cases of death arising from its use in these injections? Koch says the "mercuric solution in a strength of one to four thousand roughens the skin, also the vaginal mucosa, and in view of this fact the frequency of the injections should be limited as much as possible. Let me ask the question here, Why not leave them off entirely, unless there are special indications for their use?

I know the advocates of the prophylactic powers of antiseptic vaginal injections are able to bring forward statistics which to the superficial prove conclusively the necessity of their constant use in normal labors. And I am proud, for the honor of our noble calling, that these statistics do show a lower death-rate. But it must be remembered there are other precautions used where these statistics were prepared which were too often neglected in the instances of high death-rate.

More care is exercised upon the part of the physicians and nurses, absolute cleanliness is enforced, the beds are changed even down to the straw and mattress after each parturition; every spot of blood is removed from the bed and linen of the patient; she is kept free from the annoyances of officious visitors; the air of the wards is rendered as pure as possible. To these precautions, then, the grand achievements are due, and in the place of proving the prophylactic powers of the antiseptic vaginal douche they prove that the low death-rate is attained in spite of them.

In all the reports I have been able to find the only evidence in favor of the prophylactic powers of the injections is theoretical, based, too, upon the supposition that every parturient is in the condition of one suffering from a severe wound and should, in every case, be given the protection of antiseptic treatment in its fullest sense—a theory which I believe to be based upon false premises and harmful in its consequences, because it demands of us the perseverence in a practice which interferes with the healthy processes of nature.

If vaginal injections of irritant poisons (that being the class of antiseptics principally relied upon) are not prophylactic, a fact which I think reasonably well established, it requires no stretch of the imagination to discover where such injections have been injurious, especially during labor.

Nature made a woman just right—no man can improve upon her work. When labor begins, the function of the secreting glands of the genital tract is increased, the parts are softened and moistened to aid in their expansion and facilitate the passage of the head. But in steps the learned obstetrician of to-day and squirts a solution of carbolic acid or mercuric chloride into the woman, and it is reasonable to suppose interferes with the natural secretions, retards the passage of the child, prolongs the labor and increases the sufferings of the patient. But it is done in the name of science, a certain end must be met, and he does not stop to consider the objections, or whether the end justifies the means.

Dr. Fordyce Barker, of New York, than whom few upon this continent stand higher as obstetricians, in a discussion upon this subject that took place a little more than one year ago, says:

"At the time of the meeting of the International Congress, in London in 1881, I happened to sit at dinner with Dr. Thomas Keith, of Edinburg, and had a very interesting conversation with him as to the use of antiseptics in ovariotomy. What he said was very suggestive and led to a good deal of subsequent reflection upon my part as to the use of antiseptics in obstetrics. I recalled to my mind the fact that often in my practice I had seen disturbances and interruptions of puerperal convalescence the first week after labor, and it occurred to me whether this might be due to the carbolic acid. The following autumn I decreased the proportion of carbolic acid one-half, and thought my patients did better, and since that time I have considerably surprised my nurses by directing that no injections be used unless specially ordered."

And he further says that since 1882 it is in only a small proportion of his obstetric patients that he has had any reason for using vaginal injections, and during that time, including instrumental deliveries, he has had no case that has given any anxiety or required more than the ordinary attention.

Thus we have the testimony of this giant in the profession—a man who for fifteen years used antiseptic vaginal injections, beginning with Labarraque's solution, following with carbolic acid and then with mercuric chloride after its introduction—that they are not only useless but hurtful, that he has learned wisdom by experience and has discarded them entirely except in special cases.

Dr. Charles Jewett instituted in the Long Island Medical College Hospital, in 1884, an inquiry into the comparative merits of the vaginal injections and the non-interference custom. In the same wards taking the cases as they came, in every other one he used vaginal injections, alternating with carbolic acid in one and mercuric chloride in the next, and in every other one he used no injections. The acid was used in a strength of three per cent, the mercury in a strength of 1 in 1,000, the injections being used warm. The temperature record, which is the best guide, showed no evidence in favor of the douche.

Dr. Paul Mundé says he has employed these injections regularly, but he must admit the objections brought forward against them are not without foundation, and that probably one of the chief reasons why he used them was that the nurse and patient commonly thought that otherwise all had not been done that should.

Dr. T. G. Thomas, in a paper read before the New York Academy of Medicine, says:

"When labor begins the nurse should use an antiseptic vaginal injection which should be repeated every four hours until labor is completed. Within six hours after, the vagina should be syringed out with an antiseptic solution and the process repeated every eight hours until the tenth day, except where the labor has been difficult and instruments employed, in which cases the injections should be repeated every four hours."

Yet in a later discussion on the same subject Dr. Thomas uses the following language:

"Since listening to the evidence I must confess I have become a little weak regarding the propriety of the use of vaginal injections in these cases."

Dr. Baruch, Fellow of the New York Academy of Medicine,

says he believes the custom of using vaginal injections in these cases to be fraught with danger, and he further states that in about nine hundred cases of labor, with very many complications he had but one death preceded with febrile symptoms. He had not used prophylactic injections, until hearing a paper read by Dr. Wylie, recommending their use; he had followed the directions given, but his experience in their adoption had been somewhat singular, as in each of the six cases in which they were employed fever developed, undoubtedly due to septic processes developed from the sixth to the eighth day after the labor.

So I might go on, quoting opinions indefinitely, but I do not think it expedient to take up more of your time, and will again state that the whole process of child-bearing is purely a function of health, as much so as deglutition or conception. Sickness is not an incident of this condition but an accident, hence it is absurd to begin prophylactic treatment unless there is reason to apprehend danger. In malarial districts, when the autumn winds begin to blow, we are not surprised to meet with patients suffering from malaria. But he would be called a crank who would go around stuffing twenty grains of quinine into each of his healthy patrons as a prophylactic against malaria.

To my mind the wiser and more scientific course in the management of the parturient is absolute cleanliness, as near as possible, upon the part of both physician and nurse, to leave no spots of blood upon the person, the bed or linen of the patient; to see that the air is sufficient in quantity and pure; exclude all officious friends and visitors; avoid as much as possible all causes of nervous excitement; let the patient arise over the vessel, in bed, each day, that the vagina may be drained as nature intended it should. Use disinfectants all you are a mind to, externally, and keep the atmosphere pure and sweet, but don't be constantly injecting irritants, be they ever so mild, into the vagina of your patient, thus disturbing her quiet and interfering with her natural recuperative powers, unless there are indications of pathological disturbances. Vigilance is at all times proper, but this is the signal for active interference, and if there are suspicions that the disturbing cause is in the genital tract,

send your hot water and mercuric chloride after it, at once; or, if it is in the uterus don't hesitate to inject that organ. Meet the enemy wherever he presents himself, and you need have no twinges of conscience because of doubts as to whether you have done your duty.

The physician who follows this course, being governed by reason and a conscientious regard for the good of his patient, following no hobbies or fashions except what the requirements of each individual case demands, is the one whose work is most likely to be crowned with success.

ÆTIOLOGY OF INFLAMMATION OF THE TESTICLE.

BY ROBERT FUNKHOUSER, A. M., M. D., LL. B.

[*Read before the St. Louis Medico-Chirurgical Society, Dec.* 29, 1885].

THE causation of inflammation of the testicle has been the subject of considerable speculation. I refer to the inflammation, termed idiopathic, frequently complicating or accompanying urethral disease, which may, or may not be of a venereal origin. I do not include under this head what is termed metastatic inflammation of the ovaries and testicle, associated with mumps, variola, typhoid fever, etc., though I believe what follows applies in part to it. I use the term inflammation of the testicle as it includes both orchitis and epididymitis, the latter, however, in this connection being most commonly observed. During a period of seven years I have observed one hundred and thirty-one cases of inflammation of the testicle which were not the result of traumatism. In all there was present unmistakable evidence of stricture.

In ninety-nine of them, the constriction was located near the bulbo-membranous region of the urethra, in thirty-two in the spongy portion and in ten at the meatus or within one-half inch of the same. In thirty there were two strictures, in one four strictures, and in four three strictures. In twelve the inflammation attacked the body of the organ. Where the venereal

disease was considered of a specific nature, there occurred thirty-five, the largest number in the fourth, fifth and sixth weeks. In the seventh, eighth and ninth there were twenty-three; in the first three weeks, sixteen. In the third and fourth months, there were six cases; in the fifth and sixth months, three cases; in the seventh, eighth and ninth months, thirteen cases; in the tenth, eleventh and twelfth months, five cases; in the fourteenth, fifteenth and sixteenth months, seven cases; in the second year, three cases; in the third year, one case.

The remaining nineteen never had, to their knowledge, venereal disease. In eighty-three there is no doubt to my mind that the association of gonorrhea furnished the poison for the disease. In the remainder of the cases where gonorrhea had prevailed for some time, I am not prepared to acknowledge that the inflammation was affected directly by it, particularly in those cases occurring after the seventh month. In all the casesoccurring after the seventh month, there had intervened quite an interval of time since any discharge had been seen, before the appearance of the inflammation of the testicle. At the time of the inflammation of the testicle, there was present more or less of a discharge in all.

In all of them *a narrowing of the urethra* was present In some the symptoms of stricture were very slight and could be detected by examination only. In some the stricture partook of a spasmodic character. In some after the seventh month, the irritation of the stricture and the urethra in its neighborhood depended upon venereal excess, intemperance and improper dietetic conditions, with symptoms of mild cases of simple urethritis, the specificness of which I believe I was able to exclude unmistakably by examination of the female party. Implication of Cowper's gland occurred in some cases. In a few the constriction was not limited to several lines but extended for some distance.

After carefully examining the urethra at different times in a number of cases, while the patient was suffering from an attack of gonorrhea, I find that the narrowing of the urethra is much more common than might be expected from the meagre mention of it, though perhaps it goes without saying, as the tube in this

disease is usually greatly congested and inflamed; consequently for the time being the calibre of the canal in some portion of its course is lessened. When resolution takes place, the turgescence subsides and in the majority of cases, this narrowing disappears. The importance of bearing this condition in mind cannot be overestimated. The necessity of keeping the canal clean and disinfected is apparent.

It is during this time of irritability of the mucous membrane especially in clap, that the danger of inflammation of the testicle occurs. In the majority of cases, indeed I am inclined to say in all cases, of inflammation of the testicle, associated with clap, there is tenderness of the prostatic region, and irritability of the neck of the bladder. In the majority of the cases I could trace the inflammation along the vas deferens by the symptoms. Keyes thinks there is no mystery about the occurrence of epididymitis and attributes it to extension by continuity of tissue. He cites Berg who found unmistakable evidence of inflammatory change in one hundred and eighty-six cases out of three hundred and forty-six; more than fifty per cent. As Keyes remarks, it is not to be expected that in every case the effects on the vas deferens would be apparent. But Brown-Sequard, on the other hand. denies that it is produced by transmission, and asserts that it is due to a reflex irritation.

In fifteen of the cases, chronic inflammation of the kidneys was present; in three, diabetes. In eighteen cases, glycosuria existed. Sugar may have been present in the urine of others, but it was only during the latter part of the period that my attention was directed to its presence, not that this is peculiar to this disease, for I have found it in others, noticeably in uterine affections. No doubt in some manner the nervous system is impressed in certain cases of disease of the ovaries, testicle and uterus which are so abundantly supplied by the sympathetic system.

The effect of the stricture is to decrease, at that point, the calibre of the urethra, thereby obstructing the flow of the urine, and abnormally dilating the tube on the proximal side of the stricture; and not only this, but the force, required to empty the bladder is increased, the contracting efforts of the detrusor

muscles being proportionately intensified. We learn from physics that capillary tubes are subject to the following laws, viz., for the same tube the flow is proportioned to the pressure. When the tubes have an equal pressure and length, the flow is proportioned to the fourth power of their diameters. For the same pressure and the same diameter the flow is in inverse ratio to their length. These laws apply approximately to the tubes and canals of the body, the blood vessels, etc. The same experiments have been made by different observers upon the bodies both of the living and dead (Silliman, Marey and Foster), and the results accord with the above laws, deduced from experiments upon the flow of liquid in capillary tubes of glass.

Thus the pressure would be increased upon the proximal side of the urethra, not only in an inverse ratio as the normal length of the tube would be shortened, being limited, as it were, by the seat of the constriction, but also proportionately to the degree of the constriction, to the diameter of the seat of the stricture, thereby, in some cases, the distention of the urethra being enormously increased. The fibres of the bladder, like all other muscular fibres, have their contractions augmented in proportion as they are subjected to tension. The quiescent bladder is excited by the distention of its cavity to a peristaltic action which, in normal cases, is never carried beyond a first effort; but in cases of obstruction, of course depending upon the degree, is enabled clearly to manifest its rhythmic nature (Foster). The force pump action of the bladder during evacuation in health is very great; much more powerful is it when some obstruction occurs at some point in the urethra. Any orifices on the walls would, in time, be forced open by the continued propulsive efforts. The principal openings in the walls of the urethra are those of the ejaculatory ducts, of a slit-like character, the edges of the slits coming together acting like valves. These valvular edges are formed by a reduplication of the mucous membrane. Repeated abnormal distentions of the urethra would finally affect these openings by leaving them patulous and in an irritated condition, which would facilitate the passage of septic material and favor inflammation.

In order to verify the effects of over dilatation of the urethra,

I have made some observations upon the cadaver. By forcing a colored mixture into the canal with one end closed, the fluid passed through the opening, into the ejaculatory ducts. What occurs mechanically here, undoubtedly also takes place by means of the powerful contractions of the bladder, exerted in an increased ratio, when the lumen of the urethra is lessened at some point of its course. The tendency toward the production of a pathological condition of the orifices of the ejaculatory ducts and the mucous membrane of the urethra in its neighborhood is greater or less depending upon the general condition and diathesis of the patient, and upon the presence of some visceral disease, upon the condition and seat of the stricture, whether irritated, of large or small calibre, deep seated or situated in the pendulous portion of the canal. The effect of stricture is a mechanical one; it opens the way to the inflammation and prepares the parts to receive the poison that causes the mischief. When inflammation follows the passage of a sound, it is not the result of a sympathetic action, but is due to a direct injury to the prostatic portion of the urethra, particularly to the fore part of the verumontanum where the orifices of the ejaculatory ducts are situated. As stricture is one cause, acting mechanically to a great extent, there is, in my opinion, another, a septic material, most probably a bacillus; the probability of which cannot be gainsaid. But by those, who are not prepared to receive the presence of micrococci, it will be admitted that there is sufficient septic matter in the mucous membrane of an irritated urethra in the majority of cases of stricture to cause inflammation, when brought in contact with a healthy mucous membrane, the mucous membrane of the ejaculatory ducts.

In these cases the proximal side of the urethra is distended, a pouch being formed where decomposed animal matter lodges, a fit habitat for pathogenous bacilli, which find their way to the cul de sac of the sinus pocularis, and ultimately into the ducts. Nature strives to cleanse the part by passing a stream over it but fails most frequently from obstruction as well as from the impurity of the liquid. Bacilli have been lately discovered in the urine. All bacteria must be furnished certain definite nutritive substances l ch are partly inorganic and partly organic. The

carbon and nitrogen of carbohydrates and albuminoids are supplied from animal and vegetable matters. Ammonia and urea can furnish them nitrogen, and sugar the carbon. Bacilli may be present in the human body, and are, without producing any deleterious effect unless they develop too numerously and the chemical changes effected by them interfere with the normal action of the organs. (Zeigler and Carpenter). In this disease the germ particle which appears to be the cause may be present in the mucus of the urethra and is, in my opinion, the same that has been discovered in the discharge of gonorrhea, or, it may be, in the urine. By eminent authorities it is held that all bacteria belong to a single species of plant, each form passing into the other on occasion, though no doubt they breed truly for some generations. (Billroth and Foster.) When a sufficient time has elapsed, after the bacillus has reached the place where it is to develop, changes take place characteristic of the germ. Degeneration and necrosis of the tissue will follow their presence. The result will depend upon the bacilli and the nature of the tissue affected. (Ziegler.) I attempted over a year ago to eliminate a bacillus or poison material that it occurred to me must exist in mumps, with which inflammation of the testicle is sometimes associated. During my investigations, I learned that Drs. Capitan and Charrin had discovered a microbe, which fact has been verified by Dr. Ollivier. This bacillus or its congener in my opinion is the same as that which produces inflammation of the testicle. We find throughout nature preference exhibited for surroundings and conditions in development. This bacillus in its wanderings through the blood vessels and lymphatics, selects as its next abode an organ similar in construction and composition. The mucous membrane of the ducts of the testicle and parotid gland is lined with columnar epithelium. By means of the great splanchnic nerve through the solar plexus there is a sympathetic connection. The effects of this disease, as well as of disease generally, depend upon the degree to which the poison has affected the sympathetic.

Analogous to the above is the disease occurring in the female, the so-called metastatic inflammation of the ovaries. Indeed, I

believe, it is more apt to be the case that the organ of Rosen mueller or parovarium is attacked first, subsequently the inflammation spreading to the ovary and Fallopian tube. This organ has become atrophied in the young, but not to such an extent as it does later in the adult, in whom it consists of a few closed convoluted tubes lined with epithelium, some atrophied, but one usually distinguishable from the rest. Connected with it is the remains of the duct of Gaertner (Gray). Sometimes one of the canals is especially large so that it projects from the parovarium, piercing the peritoneum. Waldeyer believes the parovarium extends into the hilus of the ovary and Koelliker goes even further, making it appear that the cells of the membrana granulosa originate from this organ.

Similar to the disease occurring in the male is that of specific salpingitis in the female (the first mention of which was made, I believe, by Noeggerath) following connection with one who was supposed to be cured of gonorrhea, the discharge having ceased. The spreading of the disease is no doubt caused by the specific poison conveyed during coitus.

Two questions arise, viz., first, whether the poison in inflammation of the testicle, where gonorrhea is not present, or had not been for a considerable time, is identical with the poison of gonorrhea, and secondly, how long after gonorrhea has appeared does liability to contagion exist. To the first I answer, I am inclined to believe they are similar. To the second, that as long as there is irritability of the urethra as evidenced by a discharge there is danger, and at least several months should elapse after the discharge has entirely ceased before copulation takes place. The microscope will eventually decide the matter.

AMERICAN LANCET.—*The Detroit Lancet* has changed its name by dropping the local designation and adopting one indicating a wider field of observation. It has also changed its appearance by dropping the colored cover, the title page being now printed on the same paper as the balance of the journal. It remains under the able editorial management of Dr. Leartus Connor.

THE TREATMENT OF EPILEPSY.

By Wm. Moore, M. D., New York.

HAVING had charge of the New York City Hospital for Epileptics, for some months, I have had an excellent opportunity of watching this malady in all of its phases and of pursuing plans of treatment, some of which have given such beneficial results as to be worthy of mention and further trial.

In considering this subject, I do not propose to detail symptoms, but merely to point out the indications which most forcibly strike me as requiring to be met, and the methods, the employment of which have had the best effects.

On taking charge of this institution, I must confess that I had grave misgivings as to the prospect of benefiting to any extent this most unfortunate class of patients, and for some time my anticipations were fully realized. This prognosis is one into which I fear we are led by many of our text-books, which, while giving pages to treatment and highly recommended remedies, finally leave one to wonder whether it will be best to treat by polypharmacy, in the hope that some of the many drugs will hit the mark, or to risk losing valuable time and wearing out the endurance of our patient, and often his digestive system, by persistently continuing the administration of one drug, the value of which has been attested by some noted authority. As a rule, the following of either of these plans, uncombined with hygienic and mental treatment, only results in dissatisfaction to both patient and physician.

My recorded cases number forty males; whom I will divide into three classes, according to the etiology and period of development. Of the first, or *surgical* class, there were four who dated the attacks from blows or falls on the head. In three of these could be found depressed fractures. They were all trephined, two of them being greatly benefited in the decreased number of attacks. The third was a sailor, who had received a blow from a marline-spike, producing extensive fracture with depression of the right parietal, fragments of which had been

removed. By pressure with the finger over this place paroxysms could be produced at will. He averaged about five a week and was suicidal and morose.

This patient was trephined, causing entire cessation of the attacks and a decided improvement in his disposition. Two months later he left the hospital to go as a coal-heaver on an ocean steamer, an occupation which would afford a good test of the permanancy of the effect obtained by operation. Six months after leaving the hospital he called on me and stated that he had "had a few attacks of giddiness for a few weeks after entering the furnace rooms, but not a single fit." These cases add value to the surgical treatment, but unfortunately traumatism is not so frequent a cause as to often render this means available. In three cases I operated for hemorrhoids which, though contributing much to the patient's comfort, did not reduce the number of attacks. I also performed five circumcisions with similar results.

In addition to having these operations performed, the surgical cases were all under the course of treatment presently to be described.

The *second* class includes those whose attacks began after twenty years of age. Of these there were five. In three the cause was clearly intemperance, a spree usually bringing on the trouble. In the other two the etiology was obscure, but paroxysms were seemingly produced by the causes mentioned in speaking of the *third* class, in which the disease was *congenital*, or occurring within two years after birth. This, the largest class of patients, is the one to which I consider my plan of treatment especially applicable. The first step is to find the exciting causes and remove them. Of these I regard worry and annoyance as the most potent. These patients being usually weakened in mind, and having little self-control, are very easily angered. Irritation and contention must be avoided, and some steady but interesting employment found, to prevent mental inertia and degeneration. This lack of occupation is one of the greatest evils to be contended with, the public generally thinking that a person having epilepsy must sit quietly all day with some one's eyes kept upon him, full of expectancy as to the next attack.

Next to mental disturbances, the diet deserves attention. By a careful recording of the time in the twenty-four hours of the attack, I found that in fully half of the cases of this class, a certain relation existed between the time of the principal meal and that of the attack, which would usually follow in from half an hour to three hours. (The table on which I base this extends over a period of six months.) I attribute this result to the irregularity in quantity and kind of food. In regard to meats, I found no difference in the effect, whether they had a moderate quantity or none at all. After visits from friends, bringing sweetmeats, and following the return from a furlough of twenty-four hours from the hospital, there has been a corresponding increase in the number and force of the attacks. To prove this, I excluded all extra articles from their diet and refused requests for furloughs, getting the result I expected. Many epileptics are gourmands and will eat all they can obtain. One of my patients would invariably vomit, after dinner, and had been diagnosed a case of gastric ulcer by another physician. Not until I one day witnessed the enormous quantity of food he disposed of, did the proper remedy suggest itself. By cutting down his rations the trouble immediately ceased, only recurring when by chance his supply was increased.

Closely related to this matter of diet, is the condition of the bowels, constipation often being accompanied by a series of attacks, which continue until there has been a free movement. These patients seem to be especially unmindful of attending to nature's demands. I have made it a rule to give daily to all those of a costive habit, a laxative pill, containing also strychnia and belladonna to tone up the rectal walls.

The diet and bowels having been regulated, a great deal has been accomplished, without the use of any anti-epileptic medicines; the attacks are generally lessened and the mental and physical condition improved. The failure of drugs to accomplish what is expected of them, is more frequently due to the system being unprepared to receive them, than to the inferior quality of the drug.

Another condition, which makes a considerable difference in those attacked at night, is the temperature of the room in which

they sleep. I have found that a *sudden* elevation of the temperature from 64° to 74°, or higher, will invariably produce from two to five more fits, in the total number of patients, though sleeping, than if the ward be kept at about 64°.

Having considered the dietetic and hygienic treatment, I will now give the medicinal. I have become satisfied, after the use of nearly every well-recommended remedy, that, if used intelligently, the Brown-Séquard mixture is the most beneficial and least harmful of all preparations which have been proposed to the profession. Of this statement I have many endorsers in New York. It will do no harm to give the formula, though it is already pretty well known.

℞	Potassii iodidi,	ʒij.
	Potassii bromidi,	ʒj.
	Ammonii bromidi,	ʒiij.
	Potass. bicarbonat.,	ʒj.
	Tinct. calumbæ,	ʒj.
	Aquæ destil.,	ʒvi.
M.	Sig. As directed.	

Of this mixture I have been in the habit of giving a teaspoonful, t. i. d. and three teaspoonfuls within a short time before the attack will probably take place.

As stated above, most cases will be found to have the attacks at approximately the same time of day. By requesting the family to keep a record, this period can usually be ascertained; if, however, it cannot, the best rule is to give the three teaspoonfuls dose at night. This mixture must be given uninterruptedly and continued for fully a year after the last attack. In a very few cases does it disturb the stomach, as do the bromides alone. The stomachic effect of the calumba is no doubt useful in preventing this. In a few cases an acne is produced, but disappears, if the bowels be regulated, without discontinuing the mixture.

The following statistics are for three periods, of six months each, during which the patients were never from under observation. Only genuine attacks have been counted, as many of them have what they term "flurries," the petit mal of French writers, which are of no importance.

First period.—April 1 to October 1, 1884. Total number, 2485. Average per patient for six months, 62.2.

Second period.—October 1, 1884, to April 1, 1885. Total number, 2424. Average per patient for six months, 60.9.

Third period.—April 1, 1885, to October 1, 1885. Total number, 893. Average per patient for six months, 22.3.

The treatment during the first period was: Silver nitrate, zinc oxide, ammoniated copper, belladonna, and bromide of potassium, given indiscriminately without attention to diet, or condition of bowels.

That of the second period consisted principally in the wholesale use of bromides and opium, without attention to hygienic measures.

During the third, the plan of treatment above detailed was strictly adhered to, with the results given. Tr. iodi over entire spine was used in two cases; but, as they were both under the routine treatment, its effect was unknown.

While observing the patients, I noted a few interesting facts, such as the deviation of the head to one side during the period of tonic spasm. This occurred in thirty-three of the forty cases, and in twenty-eight were the eye-balls turned upwards and outwards from the side to which the head is bent.

In seven cases the side of the chest was violently scratched in the clonic spasm.

Six patients have secondary contractions of the flexors, distorting their upper extremities and to a less extent the lower. These permanent contractions have had little attention paid them, but they are certainly of great interest. The most conscientious use of the battery produces no effect on the progress of the affection. These same patients are much more stupid than the others and five of them have a decided aphasia.

In conclusion, I can sincerely recommend the plan of treatment given as one likely to produce the most gratifying results to patient and physician.

Sir Henry Thompson is not only a novelist but an artist. His new novel, "All But: A Chronicle of Luxenford Life," will have twenty-one miniature illustrations from the pencil of the author.

CASES FROM PRACTICE.

MIDDLE EAR DISEASE, COMPLICATED WITH KERATOSIS OBTURANS.

BY M. D. JONES, M. D., ST. LOUIS.

[*Read before the Medico-Chirurgical Society, Jan.* 27, 1886].

The case that I would report this evening, is one of middle ear disease complicated with keratosis obturans, or one of those curious plugs of laminated epithelium which are not infrequently found blocking up the external auditory canal. The patient, K. C., aged 19 years, of robust appearance, came for treatment to the clinic of the St. Louis Post-Graduate School of Medicine last November. She stated that her right ear had been discharging for six or eight months unaccompanied by pain, and that she was driven to seek relief from motives of cleanliness.

A few days before falling into our hands, she had been under the care of a medical gentleman of this city, who had, accepting her statement, twice removed a portion of a polypus from the meatus and instilled fluids of some kind into the canal.

The funds of the girl running low, she was advised by her attendant to seek dispensary aid. An examination by us showed a polypus filling the meatus of the right side and protruding from the lips of the canal. A portion of the growth was removed with the snare under great difficulties, for the girl had become timid and began for the first time to complain of pain in the ear. Two days later, on removing another small portion of the polyp, we were astonished to find how much the tumor had increased in size. The following day the snare was carried down to the pedicle of the polyp and the mass removed entire. Beyond the place of attachment of the polyp, which was on the postero-inferior wall of the meatus at the junction of the cartilaginous with the osseous canal was found a plug of epithelium. The latter was extracted without a great deal of difficulty, and on its withdrawal from the canal, was

followed by a gush of offensive pus. The walls of the meatus were macerated and bleached, and as we generally find in such cases, the canal was enlarged by the pressure made by the plug. The drum-head of that side was entirely gone. Patient stated that she had had suppurative trouble in both ears in early childhood.

I cannot find in the literature of the subject at my command any case similar to this. Here was a plug of laminated epithelium filling the meatus, which finally, acting as a foreign body, had caused suppuration in the tympanum. For it is highly probable that the membrane had been destroyed at the time of ear trouble in infancy. The pus, thus pent up in the tympanic cavity, prevented from escaping by the natural channel, the meatus, owing to the keratosis obturans, must find an exit, which it did by burrowing its way under the periosteum of the meatus, and coming, finally, to the surface, after passing the epithelial plug. The pus escaped into the meatus where the polyp was situated, and so the rapid reproduction of the latter, after the removal of a part, could be explained when we saw the spring that was feeding it. The patient can be considered lucky that this mass of pus and broken down epithelium found its way out through this fistula, in place of working back into the mastoid cells, and so starting an inflammation of a violent, if not of a fatal character. The mastoid escaped wholly, for there was not one symptom of trouble in that part of the temporal bone. The only pain complained of by the patient was referred to the meatus, and was caused, I presume, by the snare pressing the epithelial mass deeper into the tympanic cavity. Schwartze, in his work, "The Pathological Anatomy of the Ear," says that fistulæ of the meatus are generally the result of caries and necrosis, and also suppuration of the middle ear which discharges itself through the posterior wall of the meatus. We know that a suppurating parotid gland, or a neighboring lymph gland, may open into the canal, usually at the junction of the cartilaginous and the osseous, or else through the incisuræ Santorini. Primary perichondritis is not a well established fact, so the sources of fistulæ found in the cartilaginous meatus, must be sought elsewhere. Simple erosion ulcers may be found in the meatus, the result of inflammation. Von Troeltsch found an ulcer reaching down to the bone, on the posterior wall of the meatus, but close to the Mt., where the patient was suffering from tubercular meningitis and suppuration of the middle ear.

Caries of the meatus is usually found at the posterior upper wall near the Mt., and corresponds with the floor of the antrum mastoideum, or where the antrum enters the tympanum. But the case that this paper is drawn from was not one of caries or necrosis, or inflammation of the mastoid cells emptying their inflammatory products into the meatus, but one where the mass of epithelium, blocking up the meatus, compelled the pus to open up a way for its escape.

My entrance into the field of otology, as compared with some who are here to night, is too recent for my experience to be of much service, yet, having seen no case like this before, and finding none like it on record, I am forced to believe this to be a unique one. My belief is confirmed by a distinguished aural surgeon, of this city, of large practice, who tells me he had not seen such a case before. One more thing of great interest remains to be spoken of. A few days after the operation on the patient's right ear she began to complain of discomfort in the left one. Inspection showed the meatus entirely filled with one of those plugs of laminated epithelium, termed by aurists, keratosis obturans. Only those who have had experience with these masses know how useless it is to attempt to remove them by means of syringing. You may as well attempt to wash down a stone fence with a squirt-gun. They can only be gotten rid of by loosening the mass, piecemeal, with the curette, greatly to the discomfort of the patient and much weariness to the arm of the operator, before the job is finished. A freeing of the canal in this case showed the complete loss of the Mt. Keratosis obturans was first described by Wreden, of St. Petersburgh, and was so named to separate it from the ceruminosis obturans, or impacted ear-wax. These epithelial masses are met with in ears where the drum head is intact, but sooner or later the pressure on the Mt. leads either to suppuration or by forcing the membrane against the inner wall of the tympanum to adhesion. They are found larger and denser where a previous suppuration has destroyed the Mt., allowing the mass to cause no discomfort, except increased hardness of hearing. The etiology of keratosis obturans is obscure. Vegetable spores are, at times, found in the laminæ, but Wreden does not ascribe the origin of the mass to the fungus. Burnett, in his work on the ear, thinks the disease may be set up through undue efforts of cleanliness. The meatus is bruised and then a slow exudation of dermoid cells takes place.

As the mass grows, the more the irritation, and so fuel is added to the flame. Keratosis obturans is not at all a common affection. The case reported here was a remarkable one from the size and density of the plugs. These plugs sometimes cause neuralgia in the external auditory canal, around the auricle and even extending to the temple.

POTASSIUM PERMANGANATE AS AN EMMENAGOGUE.—THREE CASES.

By A. F. Kerr, M. D., Williamsville, Va.

The virtues of potassium permanganate as an emmenagogue, have, during recent years, been highly extolled, and the numerous reports of its efficacy, gathered from the medical journals, lead me, during the past year, to make trial of it, the results of which, are illustrated in the following cases:

Case I. Miss Annie R., æt. 18, commenced menstruating at 15 years: the menstrual discharge was at all times very slight, and attended with intense pain, so much so that she had to take her bed, relieve the pain with opiates and the application of cloths wrung in hot water. Each attack of "cold" increased the trouble, and in addition to the dysmenorrhea she complained of intense pain in the left side a little below and to the left of the ensiform cartilage, which she described as a grabbing, thumping pain similar to the pain of an abscess beneath dense tissue. The pain was not constant, but recurred frequently during the day, and was especially severe upon the approach of, and during her menstrual period. Muscular exercise, such as sweeping, was an exciting cause, and an effort to laugh frequently ended in tears, so sudden and excruciating was the pain. "She had suffered many things of many physicians," with but little amelioration of her trouble.

When placed under my charge for treatment in April last, she was greatly emaciated, discouraged because of the repeated failure to cure her malady, presented the picture of despair, and refused examination and treatment. She was finally induced to submit to an examination, which revealed no organic lesion and nothing to account for the pain in the side except a slight tenderness upon pressure over an area not exceed ing one and one-half inches in diam-

eter. An examination per speculum revealed no displacement or abnormality of the womb.

Recognizing nothing in the case which demanded special treatment except a debilitated uterus and broken down constitution, and believing the pain in the side bore only a sympathetic relation to the diseased uterus, I placed her upon tonic treatment consisting of iron, nux vomica, aloes and belladonna. For the pain in the side I prescribed a local application composed of chloral, chloroform, and tinctures of aconite and belladonna, and as a stimulant to the uterus, I gave her two grain doses of potassium permanganate in solution after each meal to be continued until the appearance of next menstrual discharge,then suspended,to be resumed three or four days before the succeeding menstrual period was expected. Upon the return of succeeding menstrual epoch after instituting treatment, the discharge was profuse, comparatively painless, and of a dark grumous character. The treatment was continued with the most satisfactory results: the pain in the side gradually subsided, the monthly discharges became painless, natural in quantity and color, her general health greatly improved, and she is now a bright, blooming girl, prepared to take her place in society and for the performance of all the duties of her sex; and in reply to my question, a short time since, as to her health, said: "I can say that I am well."

CASE II.—Miss Emma T., æt. 17, the subject of epilepsy for four years, applied to me for treatment. She had been under the treatment of two other physicians with no permanent relief.

Upon inquiry into her history, I learned she had never menstruated, and that the epileptic convulsions were more severe at stated periods, corresponding in intervals of time to the menstrual periods.

From the length of time she had suffered from epilepsy, and her mental condition—the intellectual faculties being markedly impaired—I regarded the case hopelessly incurable, but recognizing the possibility of a relation between the epilepsy and her monthly changes, I hoped, by proper treatment, directed to the uterus, in addition to antiepileptic treatment, to, in a measure, reduce the number and severity of the convulsions.

To accomplish this end, I prescribed the permanganate of potash in two grain doses, gradually increasing to three grains; in addition, I put her upon a tonic and antiepileptic treatment; this was followed by a marked improvement in her general health, and epi-

leptic seizures, and the establishment, in about six weeks from the commencement of treatment, of the menstrual flow, which was free and not attended with pain. The improvement in this case was decided, both as to the epilepsy and menstrual difficulty, but for satisfactory reasons, the case was abandoned, and I am now unable to report the final result.

Case III.—Esther W., colored, æt. 25, mother of five children, the youngest aged fourteen months, complained of periodical attacks of uterine pain, severe headache and bleeding from the nose, with general health much impaired, the attacks corresponding in time with the menstrual periods. Placed her upon permanganate of potash in two grain doses, which was followed in due time by the establishment of the menstrual flow, cessation of the nose-bleeding and headache, and improvement of her general health.

Remarks.—It may be inquired how far the results obtained in these cases were due to the other remedies used, and how much is to be credited to the potassium permanganate.

If it be remembered that two of the cases had formerly been under treatment of physicians, with no satisfactory results, and their prompt recovery after instituting the permanganate of potassium treatment, it must be admitted that the latter remedy was a prominent factor in producing the results obtained; and, while the limited number of cases treated with this remedy does not establish fully the virtue of the potassium permanganate, it is certainly suggestive of its virtue, and in connection with the large number of cases reported through the medical press, it must go far toward establishing the conclusion that potassium permanganate is one of the most efficient agents we have in the treatment of amenorrhea and menorrhagia, when due to debility of the genital organs, and merits the attention of, and a fair trial by, the profession.

The mode of administration was usually in solution in doses varying from two to three grains, taken in half a glass of water after meals, and continued until the menstrual epoch was established; then discontinued until three or four days before the next period was expected; then taken as before.

The disgusting nauseating taste of the medicine is indeed objectionable, and to obviate this, I sometimes prescribed it in capsules, but this method is not free from objection, and, *apropos* to this subject, cannot some of our enterprising manufacturing chemists prepare it in some permanent and more eligible form for administration so as to disguise the taste?

CASE OF FIBROID TUMOR OF THE UTERUS.

BY PROF. E. H. GREGORY, M. D.

[*Read before the St. Louis Obstetrical Society, Jan.* 21, 1886.]

A lady, Mrs. L., consulted me in September last for an abdominal tumor, supposed by her physician, a very intelligent man, to be a fibroid, but as it gave the sense of fluctuation, he was nonplussed and advised her to consult another. The age of the patient was about 30, suggestive of ovarian tumor; the complexion not pallid, usual in ovarian disease. The abdomen was not large, but symmetrical, tumor central, ovoid, smooth, elastic and fluctuating; menstruation considerable; no flooding. The enlargement most marked in lower part of abdomen, the superficial veins were not large, nor was there edema of the wall. On palpation the hand could not be pressed back toward the brim of pelvis. Vaginal examination found os in natural position, no tumor in the pelvis nor sign of fluid free in the belly. Examination by rectum found uterus in natural position. Pressing one finger on the cervix uteri and moving the abdominal tumor with the other hand from side to side the uterus and tumor moved as one. Feeling some anxiety about pregnancy as a complication I hesitated before using the sound. She, however, would not for a moment entertain the idea; and I at last passed the probe and found uterus five inches deep, the instrument passing without difficulty, nor was any blood observed to follow the withdrawal of the sound.

Patient returned to her home, a distant city, bearing a letter to her physician, in which I concurred with him in the opinion that it was a uterine tumor, fibroid, expressing the opinion that pregnancy was probable, for I could not rid myself of the idea, and recommending that no surgical operation be resorted to for the present. Three weeks later her physician visited me and said patient had miscarried soon after arrival at home, since which time the tumor had seemed to increase rapidly, a very unusual event, with much pain, so extreme as to require the constant use of morphine in large and increasing doses; the pain intolerable and sufferer desperate. We agreed to continue the morphine and later, if no amelioration, to make exploratory incision, provided the patient insisted on the procedure. A few weeks later a telegram came urg-

ing me to come at once and do the operation. Accordingly, ably assisted by friends, Drs. Carson, Rhodes, and Walker, I removed the uterus about the place of the internal os with the tumor. The growth was a symmetrical one, general, seemingly an overgrowth of the walls of the uterine cavity. No out-growths either sub-peritoneal or sub-mucous, simply a diffused fibroid. The stump of the cervix was secured externally with a Tait clamp.

I left the patient four hours after closing the abdomen, with a good pulse, good expression of face, hopeful and happy. A few hours later there was some hemorrhage from stump, with signs of shock, which latter continued for several days, the attending physician almost hopeless, but the patient always courageous, never entertaining the thought of danger for a moment. When reaction came her recovery was uninterrupted. About the sixteenth day I removed the clamp and at last account the patient was doing well, now six weeks since the operation.

Sir Spencer Wells has written that "fibroids commence their existence at a time when the organ which is affected is in a state of high functional activity. They participate in its periodical variations, increase with accessions, slacken growth with its torpidity, and if nothing happens to check the even tenor of their progress, they often dwindle away with the cessation of sexual life. I have," continues the same author, "noted the disappearance of these tumors which, though doubted by some, has been well attested. It has been observed after delivery, and to correspond with the process of involution of the womb."

Our case furnishes a striking exception to the progress of similar cases as represented in the quotation above.

A CASE OF RUPTURE OF THE PATELLAR LIGAMENT.

By J. E. Tefft, M. D., Springfield, Mo.

[*Communicated to the St. Louis Medical Society as corresponding member*].

On the 16th day of November, 1885, Mike Murtagh, age 36, was knocked down by a long iron bar, with which he was handling heavy rock. It first struck his forehead and nose, producing some slight abrasions. There was also an abrasion upon the lower third of the crest of the right tibia. The injury complained of was at

the left knee. An examination half an hour after the receipt of the injury revealed the following conditions: There was no external injury, no laceration or abrasion of the skin: no fracture of any of the bones entering into the composition of the joint could be detected. There was inability to extend the leg. The leg could be everted, as to the thigh, six or eight degrees, though the other knee permitted no lateral motion. There was a distinct gap above the tubercle of tibia in the situation of the insertion of the patellar ligament. The patella was displaced upwards three-fourths of an inch and slightly displaced outwards.

It was concluded that the ligament was ruptured at its tibial attachment, and that there was more or less laceration of the internal ligament of the joint, permitting the eversion of the leg. The knee and leg swelled largely, and on the second day there was extensive ecchymosis within and behind the upper extremity of the leg. The limb was immobilized upon a splint nearly but not quite straight, but no attempt was made to disturb the location of the patella. When the inflammation and swelling had subsided, the limb was incased in plaster, and efforts were made to fix the patella in the middle line of the limb.

The fact that there was no contusion or abrasion or other sign of local violence in the vicinity of the knee, renders it probable that the rupture of the patellar ligament was wholly by indirect violence, by the forcible contraction of the quadriceps, and that the internal ligaments were overstretched or torn by a wrenching of the joint in the fall. At this writing, Jan. 4, 1886, seven weeks after the injury, there is no tenderness nor pain about the knee. The patellar ligament has united. There is some thickening of the soft tissues on either side. There is no fluid in the joint. The patella is still retracted three-fourths of an inch, and is still slightly displaced outwardly. The leg cannot be everted. He can extend the leg nearly to a straight line and can flex it to a right angle with the thigh. He stands without pain. He walks insecurely and with considerable lameness, complaining that the leg is unstable in some way which he is not able to clearly define. He is allowed to walk about the room at will and outside with crutches with no apparatus upon the limb.

On the whole, the local conditions present, make it apparent that in a few months the limb will be substantially restored to its former usefulness.

A study of recorded cases of transverse fractures of the patella and of rupture of the patellar ligament, in many respects similar lesions, shows two important facts, of course well known but apparently too little considered.

(1). The retraction of the patella from the uncomplicated lesion is slight, not exceeding, on the average, one-half to three-fourths of an inch, the limit being, perhaps, from one-fourth to one inch, the bone being held by its aponeurotic and fascial attachments and by those of the tendon of the quadriceps. In the cases of greater retraction, three or four, or five inches, these attachments were torn away at the time of the injury, by the continuing operation of the cause of the fracture or rupture. When such retraction occurs it is immediate.

(2.) Aside from displacements resulting from effusion into the tissues or into the joint cavity, treatment, by the usual methods, is apt to leave the patella very much as it finds it. The patella, in the case of rupture, or the upper fragment, in the case of fracture, is only to a limited extent under our control.

A primary shortening of four or five inches is very apt to be followed by a long fibrous union. In very many cases treatment by position, splints and bandages, or by any of the different complicated devices, does but little to better the final result. This is abundantly shown by the fact that while in a large majority of cases, the primary displacement is small, complete approximation and bony union are almost unknown.

Lists of cases with primary shortening of from one-half inch to one inch, generally figure as having fibrous bands of from one-fourth of an inch to one inch. In these cases it is liberal to allow, on an average, one-fourth of an inch as the approximation gained by the treatment.

An exception to the above is to be made in favor of the treatment by wiring the fragments. Inasmuch, however, as a ligamentous connection of one inch in length or less, seems to be as valuable as a bony union; wiring the fragments in case of fracture, and wiring the ligament in case of rupture, obviously should be reserved for cases where the retraction is great and where the broken fragments cannot be brought near together, say within an inch, and securely retained by the usual methods.

AN OVARY EXPELLED FROM THE ANUS.

BY J. C. TEDFORD, M. D., MOBERLY, MO.

[*Read before the Moberly Dist. Medical Society, Feb.* 16, 1885.]

I was called November 11, 1885, to see Mrs. S., aged about 28 years, who has been married nearly ten years, and has had three children, all now living, and three miscarriages, occurring each time at an early period of utero-gestation. The last one occurred during her last illness. She was rather small in stature, and of a slender form. At the time of my first visit she was considerably emaciated and anemic. She had failed to menstruate for about two months. There was tenderness on pressure in the epigastric region, and severe pains at times in the abdomen. Digestion very poor. She frequently had nausea and vomiting; tongue coated, bowels generally constipated, but responded readily to the action of carthartics, but she suffered with pain in the abdomen during the time the bowels were being evacuated. She was troubled with gas in the stomach and bowels. There was pain and great tenderness on pressure in the region of the left ovary. There seemed to be also at that point a tumor, or induration, so great as to cause an elevation or swelling, plainly visible to the eye. I did not make any vaginal exploration at this time. The spine, from a point between the shoulder blades, upwards to the lower cervical vertebræ, was quite tender on pressure. Considerable fever existed at this time which seemed to be remittent in form. She had no appetite, was restless and unable to sleep soundly. With the foregoing symptoms presenting, I was at a loss to say which was the main seat of disease. The question presented itself to my mind about this way. Does the spinal irritation at a point of exit from the spine of many nerves distributed to organs contained in the abdomen account for the symptoms presented in the case, or does ovaritis cause these symptoms by reflex or sympathetic action? A decision as to which of these factors was the leading one, was not reached at this time, but the probability of the existence of pregnancy decided me to adopt the following course of treatment, viz., bismuth, pepsin and bicarbonate of soda, to allay irritation of the stomach, opiates to assuage pain, calomel to stimulate the glandular system, quinine to control fever, and, at the same time I applied

a small blister to the spine, over the region of tenderness, and also directed to apply to the abdomen mustard plasters, turpentine stupes, or hot fomentations, one or the other, all the time until relief was obtained. Under the treatment she improved, and November 14, I ceased my visits. She seemingly continued to do well until November 27, when I was called in again, and found, on examination, nearly the same train of symptoms as at first, but changed in degree. The spinal tenderness was greatly relieved, the tongue had cleaned off, and now appeared very red. The inflammation in the region of the left ovary was increased and more tender than at first, the tenderness extending across to the right iliac region. An exploration of the pelvic organs developed the fact that the womb was very tender—pressure upon it in any direction caused pain. It was lying on the floor of the pelvis in a retroverted condition, the os turned towards the pubis, and seemed to be larger than natural for the organ in a healthy condition. The patient, lying upon her side, there was, however, not much difficulty in returning the womb to its natural position, but it would not remain for any great length of time before falling over backwards again. The tumor or induration in the left iliac region could be felt distinctly through the vagina, and caused pain when pressure was made in that direction. The whole vaginal os uteri seemed to be covered with pus, giving it a yellowish color. On removing the pus, disclosed a very red and inflamed tissue beneath. Pulsation seemingly synchronous with the beat of the heart, was plainly felt by the finger, placed upon any portion of the womb in reach. Such a high state of excitement as seemed to exist in the pelvic organs I could not fully reconcile with the idea of pregnancy existing. If it did exist, miscarriage would certainly occur. Therefore, I very cautiously introduced Simpson's uterine sound. It met with no obstruction until it reached the fundus of the uterus, entering to a distance of about four inches, showing the womb to be enlarged. Neither the introduction nor the withdrawal of the sound was attended by any discharge of fluid of any kind. I therefore concluded the patient was not pregnant, and treated her without fear of producing miscarriage. Therefore, a blister was applied over the region of the left ovary, and as fast as one got well, another was applied, until three had been drawn at the same place. During the time occupied by this blistering the remedies before mentioned were prescribed as thought best, with the addition of a teaspoonful three times a

day of aletris cordial. I also daily introduced a plug of cotton moistened with glycerine, and sometimes powdered with iodoform, into the vagina in contact with the womb; and warm water vaginal washes were used after taking the cotton away each time. January 1, 1886, I ceased my visits.

At this date a slight wasting occurred which she and all of us mistook for her menstrual flow. Jan. 8 I called again—it being one week from last visit. The flow still continued in very small quantity. Nothing remarkable about the case, except it had now come to a time, according to the regular course for such a flow to cease. On the morning of Jan. 9, about day-light I was called to see her and found her flooding severely, but having no pain. I applied my hand to the perineum and found quite a quantity of coagulated blood. I introduced my finger into the vagina and found a small fetus almost entirely expelled from the uterus. I took it and the placenta away with but little trouble, but considerable hemorrhage, continued for near a half hour after. The loss of blood had reduced the patient considerably. She looked very pale, and pulse was very feeble. Under the use of stimulants and nourishment, she seemed to rally as fast as expected under the circumstances, and did well seemingly until Jan. 14. She asked her husband to assist her up to the chamber. This he did, when she was taken with a severe tenesmus or disposition to strain, and had severe pains in the abdomen. As she expressed it, she could not resist the straining efforts, until a tumor was expelled from the anus. I was sent for, and went direct to her bed-side, and found her lying upon her side, and a tumor as above stated protruding from the anus, very red in color. It did not seem large enough to be the womb, but to make a start towards a solution of the case, I introduced my finger into the vagina and found the womb all right, but higher up in the pelvis than common for it, and turned to the side. I then introduced my finger into the rectum, and discovered that the tumor had a pedicle extending up into the rectum, to a point almost as high as could be reached with the index finger; but by firm pressure upwards, I could feel the pedicle pass over a shelf, as it were, out of the bowel through a rent in the rectum as I then supposed it to be. This shelf over which the pedicle came, felt to be massive and thicker just under the pedicle than at any other point in the walls surrounding it. The tumor itself seemed to be much larger at one end than at the other. It was, as before stated,

red at its larger end, and faded in color towards the smaller end, and was quite solid to the touch. I could make nothing out of the tumor but an ovary. But its place and manner of exit from the body was so entirely new to me, I asked that Dr. Faulk be sent for. He arrived in a few minutes, and we together decided the tumor to be an ovary, and that it must be cut away. To replace it or attempt to do so, would be so much time lost and cause the patient much suffering. The fact of an ovary being in the bowel, necessitated previous disintegration of tissue, before the ovary could have entered it. This fact together with the cystic condition of the ovary itself, decided us against an attempt at replacement. We at once, with the consent of the family of the patient, telegraphed to Dr. Dysart of Paris, Mo. He came at two o'clock the same day. He confirmed our diagnosis, ligated, and cut away the tumor or cystic ovary. This prolapsion was not attended at any time by any great degree of hemorrhage, but the operation was followed by a constant discharge of bloody watery fluid from the rectum. As stated before, the peritoneal coat of the expelled ovary was very red, and cone shaped, the end furthest from the womb was the larger, perhaps one and a quarter or one and a half inches in diameter, tapering down at the other end, to nearly the size of, or perhaps a little larger than the natural ovary and more solid. On opening the cyst, it was found to be filled with an almost transparent whitish substance, tinged a little yellow and semi-solid in consistency. This substance filled the tumor from one end to the other showing the ovary to be in a cystic condition throughout. The coat of the cyst under the peritoneal coat was of a yellowish white color and quite firm in texture. The patient was put upon a treatment of opium and quinine internally, and antiseptic washes for the vagina and swabbing of the rectum with the same solution. Not succeeding in the swabbing satisfactorily, a suppository of iodoform, tannic acid and morphine incorporated with cocoa butter was introduced into the rectum every eight hours. Carbolic acid and corrosive chloride mercury were the disinfectants used, the latter in proportion of one to two thousand. On the morning after the operation, Jan. 15, at 9. A. M., P. 102, T. 101°; Jan. 16, 9. A. M., P. 94, T. 99°; 17, 9. A. M., P. 80, T. 99½°; 18, 9. A. M., P. 84, T. 99°; 19, 8. A. M., P. 120, T. 101°. From this time the pulse became faster and faster until death on the twentieth. On the morning of the seventeenth the patient complained of a load or

weight in the rectum as of something that wanted to come away, as she expressed it. On introducing my finger into the anus it came in contact with a massive substance of considerable size extending down to the sphincter ani and upward to a point above the pedicle of the amputated ovary. The old pedicle could be felt distinctly, and this second seeming tumor seemed to come out and was a direct continuation of tissue from just above the pedicle of the former operation. By moderate traction on the tumor, it was drawn out at the anus. A ligature including the former pedicle and the tumor was applied and the tumor punctured, letting the water out of the tissues, thus greatly reducing the size of the mass, so that but a very small fraction of tissue was cut off. The pedicle was replaced and the former treatment continued. Dr. Dysart performed this last operation also. As the case advanced, the amount of opiates had to be increased to procure rest. General peritonitis gradually advanced, with constantly increasing tympanitis, until January 20, when death quietly closed the scene at 3.15 P. M.

Post mortem twenty-four hours after death. Nothing was examined, except the pelvic organs and the lower bowel. No organ was permitted to be removed from the body. Physicians present and participating in the examination were Doctors Hickerson, Austin, Weemes, Faulk, Humphrey, Irwin and myself. The abdomen was tympanitic. On laying open the walls of the abdomen, the following conditions were observed. First there was no omentum covering the bowels in front, the bowels were in direct contact with the abdominal walls. On further search the omentum was found gathered into a wad, or mass, in the left side, at a point near the crest of the ilium. The mass was of a yellowish white color, and very much softened in texture, so much that pressure upon it between the thumb and finger was sufficient to overcome its cohesive powers. The bowels presented an injected condition of blood vessels throughout, as far as examined. The womb and broad ligaments, were of a dark red color and relaxed in texture.

The left ovary was absent but the stump from which it had been cut was very conspicuous and had at some period after the ligation and amputation of the ovary slipped out from the ligature into the pelvic cavity. The rectum and lower portion of the colon up as high as the lower iliac fossa was quite solid and firm to the touch as if filled nearly full of something. What was that something?

Puncturing of the bowel revealed the fact that its contents were animal tissue instead of feces. At once the idea of intussusception was presented and was demonstrated to be a fact, and the ligature upon the stump or pedicle showed not only the point of entrance of the ovary into the bowel, but showed as well that that portion of bowel was the lower or advance end of the invaginated portion. This gave light upon the coming down of the second tumor into the rectum on the third day after the first operation. The invagination of the bowel must necessarily be composed of three layers of the bowel. So the advance end must necessarily form a cul de sac lined by peritoneum. Inflammation progressing in the bowel involving all of its structures attended with effusion of bloody serum or a fluid, which, by gravitation, accumulated at the most pendant portion thus forming the second tumor. The ovary entered the bowel in the sigmoid flexure and passed downwards into the rectum dragging the portion of bowel along the rent and opening into the bowel below. So the portion of bowel next above the place of entrance of the ovary into it was made to form or constitute the internal layer of the invagination. The middle and external layer was made up from the bowel next below the rent. That is between the rent and a point not much below the sacro-iliac symphysis where the rectum is closely attached to the sacrum by the meso-rectum. This attachment extends three or four inches along the surface of the sacrum, so the rectum from the upper end of this attachment could not be displaced to any great extent, consequently this portion of rectum can become the external layer, but not the two internal layers of an invagination. The portion of bowel contiguous to the rent or place of entrance of the ovary, was thickened and very dark in color. The rectum and colon up as high as the crest of the ilium seemed to be in a state of high inflammation. Some four days before death, a well defined tumor could be felt in the left side of the bowels near the crest of the ilium at the point where the omentum was found collected in a roll. Whether this roll of omentum was the tumor felt, or some three or four balls of fecal matter that was found in the colon about the same point constituted the tumor I do not decide, but possibly the two conditions existing at the same point contributed to the formation of the tumor that was felt during life. No further examination was made. No notes of symptoms or change in this case were taken as it progressed, consequently what is here stated is from memory of the

circumstances as they occurred. No microscopical examination having been made to my knowledge in the case, consequently the exact nature of the agencies that led to the passage of an ovary through the bowel is still left a matter of conjecture. Medical literature does not, so far as I know, present a similar case to this. Perhaps some of you have seen or read of such a case; if so, we will gladly hear from you.

IMPERFECT SYMMETRY.—Few things in nature appear more constant and exact than that symmetry of organic form which is shown in the likeness of the several members of each two or more corresponding and similarly useful parts. The example nearest to each of us is the symmetry of the two side-halves of his own body; it usually appears perfect. And, so far as it can be tested by chemical analysis, or by the much more delicate indication of symmetrical diseases, there is a symmetry of composition as well as of shape and visible structure. In substance, as in form and size, the two halves appear exactly alike. And yet, it is probable that their symmetry is never quite perfect. SIR JAMES PAGET thinks that any one who will carefully compare the two or more similar component parts of himself, or of any animal or plant, or any bilateral organ of either, will find, within the general likeness some unlikeness of size or form, of texture or color, or of all these together. Certainly it is so in the two lateral halves of our own bodies. Just as between parents and offspring, the likeness is general and constant, but never perfect, so it is between the halves of each individual. Invariably nature varies.

The phenomena of symmetrical disease to which attention was drawn many years ago by Dr. William Budd and Sir James Paget, are now carefully studied by many; but those of the modifications of disease associated with the defects of symmetry need study, too. Sir James states that he has constantly observed them during many years, but has not made exact records of them, and can, therefore, do little more than suggest some of the lines of study which may yield to others better results than he has gained. The study should include the defects of symmetry, not only of size and shape, but of composition and of rates and methods of development, degeneration, and disease. These are too often dismissed from study when they are called "exceptional cases," a mischievous phrase, if it be deemed explanatory; for it is probable that an "exception" to one rule is only an example of another rule which is as yet unknown. —*Am. Journ. of the Sci. Med. Journ.*, 1886.

EDITORIAL.

ASSOCIATION OF PHYSICIANS AND PATHOLOGISTS.

The tendency of these modern days seems to be towards the organization of special associations of practitioners whose work or inclination is in a particular field of practice, or of study and investigation. Thus we have The American Gynecological, Opthalmological, Otological and Laryngological Societies, and American Surgical Association.

The latest special organization of this sort is one which has recently been effected, two preliminary meetings having been held in New York City, Oct. 10 and Dec. 29, 1885, at which, after full discussion and mature deliberation it was decided:

1. To form an Association of Physicians and Pathologists, of which the numbers shall be limited to one-hundred.

2. To hold an annual meeting in the month of June in the city of Washington.

3. To hold the first meeting on Thursday and Friday June 16 and 17, 1886, with Dr. Francis Delafield, of New York, as president.

A number of eminent practitioners in different parts of the country were selected as original members and a committee was appointed to notify such persons and to complete arrangements for the first meeting.

The new association will doubtless do much to stimulate original investigation and valuable work in the department to which it is devoted, having the same kind of influence upon them which the other special societies have had in their respective departments.

We shall anticipate much of interest and profit to the profession at large from the work which this association will do and to which others will thereby be stimulated.

ERGOT.

Mr. Plowright calls attention in the *British Medical Journal*, Jan. 30, to a possible source of danger from ergot which may be worthy of consideration in this country as well as Great Britain, although the conditions of life here are so different that the danger is not an imminent one.

He says that while rye is the most commonly of all the cereal crops affected with ergot, wheat is next in this regard; and in certain districts where there are many marshes or fens, a considerable amount of ergot occurs in the wheat. Of course in the improved process of threshing and winnowing the wheat, most of the ergoted grains are removed, both those in which the size of the grains is either much larger or much smaller than the healthy grains. Consequently little danger is to be apprehended from the occurrence of ergoted flour, purchased in the ordinary course of trade from millers or flour dealers.

But in these fen-districts many of the agricultural laborers and others subsist for considerable periods upon the grain which they have gleaned after the regular harvest was completed. This grain, so gathered, they thresh and dress for the mill themselves at home; and in this there is often a very considerable amount of ergot, which may be the occasion of serious disease.

The appearance of wheat-ergot, he says, is very similar to that of rye-ergot, but shorter and stouter, and the grains are often mistaken by farmers and millers for excreta of mice and rats.

In speaking of the possible pathogenic effects of ergot, Mr. Plowright cites the statements of a number of observers which show that ergot may cause locomotor ataxia, or at least may induce grave ataxic symptoms; and cites experiments and observations in considerable number, showing that ergot certainly has sometimes been a cause of dry gangrene, in spite of the doubts which had been cast by some upon the claim that ergot had caused the terrible epidemics of that disease which have long been ascribed to it.

While we are not aware of any disastrous results following the exhibition of ergot when given for the controlling of hemorrhage, for the reduction of uterine fibroids, or in the treatment of diabetes insipidus, or of typhoid fever, it would certainly seem that there is a danger in that direction.

In England, and other European countries, great loss has sometimes occurred in the agricultural districts by pregnant ewes and cows eating grasses which were affected with ergot. We shall be glad to hear from any of our readers who may know of the prevalence of such trouble in this country. It will be a matter of interest to know to what extent ergoted grasses are found, and cause trouble with the flocks and herds of our own country.

ON URETHRAL INJECTIONS IN BLENORRHAGIA.

DR. P. Aubert, surgeon-in chief of l'Antiquaille, contributes to the *Lyon Médicale*, January 3 and 10, a study upon the use of urethral injections in the treatment of blenorrhagia. He considers the material of which they are made, the time when it is best to practice them, and the method in which they are to be administered.

Under the first head he does not give any favorite formulæ, but lays down this principle, that every injection should be antiseptic or at least aseptic, i. e., should contain no germs. Urinary antisepsis is practised by every careful surgeon, and he who would practise a lithotrity, a dilatation or even a simple catheterizing takes care for the absolute cleanliness of his instruments. And yet how much negligence in this respect there is on this point by the majority of practitioners!

With regard to injections he thinks no one had previously formulated the principle which he has now enunciated. While injections recently recommended contain antiseptic agents, it is with the end of destroying a pathogenic microbe of blenorrhagia and not of avoiding a danger resulting from the penetration of foreign germs. Now, there are here, he says, two notions, which despite

their numerous points of contact are distinct from each other. It is not sufficient to know that the bichloride or the permanganate is able to destroy the gonococcus; it is necessary to bear in mind that such a reputedly innocent injection may constitute a peril.

He says that he believes that if one should put in a culture fluid a few drops of some of these ordinary injections taken from bottles or other vessels with a syringe and hands more or less clean, he would obtain a rich harvest. He says that he has not tried that, but he has examined the urine of large numbers of patients with cystitis following blenorrhagia. In the pus from these cases of cystitis sometimes he has found no organisms, sometimes he has found gonococci, sometimes he has found various kinds of organisms, most often bacilli of various sizes and forms. Investigation of the antecedents of these last cases shows that for weeks or months they have thrown various injections into the urinary passages.

While organisms may occur in the urine without having been carried by injections, as in certain infectious nephrites, the microbes of these nephrites (typhoid, scarlatinous, etc.) do not cause cystitis, and share the fate of the disease with which they are associated, and disappear with it.

While microbes simply deposited at the orifice of the urinary passages, or between the lips of the meatus, may pass little by little, to the deeper parts, that in man certainly would be rare, and it is only rational, he thinks, to admit when various organisms are found in the bladder after a blenorrhagia and injections employed for its treatment, that these organisms were introduced by the injections.

He does not consider it necessary that the injection itself shall directly come in contact with the deeper parts in order to contaminate them, as in coitus the gonococcus is certainly not deposited very deep in the canal. He holds that there are other forms of discharge than those caused by the gonococcus, which are caused by various bacteria not yet isolated and identified.

It is not sufficient then that the injection be used gently. It is

necessary that it contain no germs and be antiseptic; it is equally necessary that the receptacle which contains it and the syringe be also aseptic. Preliminary boiling seems to be the best practical means of securing the disinfection of all the necessary material.

It is important to secure asepsis by boiling, for a good number of substances positively efficacious in blenorrhagia, such as the sulphate of zinc, tannin, etc., are not antiseptic in the true sense of the word, a proof, in passing, that there is in the use of injections something more than direct destruction of the microbe. He thinks it well to boil even the antiseptic solutions, for the dose of the active substance should always be very weak in order that the injection be not irritating.

The tissues are not intact but charged with microbes. Hence, strong antiseptic injections are positively injurious, for with them one is sure to irritate the soil without ever being certain of killing all the germs, and those which survive always find more favorable conditions of development in the inflamed tissues.

Another condition which the injections should present is that they should not contain any solid particle, or at least should contain them only in a state of extreme fineness. Having seen, in cases where injections with subnitrate of bismuth had been made, on making the patient pass water into several different glasses, that the first contained thick and cloudy urine, the next two or three clearer and the last coming from the depths of the bladder, a thick magma of bismuth, he concludes that this might become the nucleus of a calculus; and inasmuch as other formulæ which are perfectly limpid give equally good results in practice, they should have the preference.

Other things being equal, preference should be given to remedies which do not stain the linen. Nitrate of silver has this objection, and also throws down a precipitate of chloride of silver on meeting other chlorides, but this is in such minute division as not to be objectionable, and its action is so effective that it can hardly be dispensed with in the author's opinion, though he would prefer the instillation of a few drops rather than injections, properly so-called.

ANTISEPTIC INJECTIONS INTO THE LUNGS.

At a recent meeting of the Société Médicale des Hôpitaux of Paris, M. Gouguenheim gave his experience in antiseptic intra-pulmonary injections for treatment of pulmonary tuberculosis. In the place of solutions of iodoform, he used sublimate in proportion of 1—2000, 1000, and 500 parts of water; injecting about one-quarter fluid dram (1 cc.) each time. The strongest solution was reserved for large pulmonary cavities. The liquid was warmed and the syringe needle introduced into the first or second intercostal space sufficiently remote from the border of the sternum to avoid wounding important structures, vessels, nerves, or pericardium. One-half to two, and even three milligrams constitutes a dose of the mercurial sublimate. Intolerance was not manifested, and the pain, if any occurred, was always slight. Cough sometimes was excited. Hemoptysis was exceptional, and contra-indicated the treatment. Of 33 cases treated 21 gave favorable results; of 10 cases ending fatally, 3 showed local signs of improvement. The favorable results were diminution of râles, and in some the expectoration was lessened. In America injections of iodoform dissolved in oil or ether have been practised for treatment of pulmonary cavities. M. Gouguenheim aims at destruction of the infecting microbe, by saturating the tissues with a germicide. In theory this is well, and certainly the procedure promises better than the method by inhalation, for obvious reasons. Only, thrusting a needle blindly into the vascular lung parenchyma, as recommended, would seem a most dangerous operation in view of the vessels likely to be pierced; vessels whose coats may be already weakened by the destructive process.

Adhesive Plaster.—According to *Technics* (March 4) Dr. H. R. Kelly says that lightly sponging the surface of adhesive plaster with a sponge saturated with strong ether will develop its adhesive properties without heat. Spirits of turpentine will have the same effect.

BOOK REVIEWS AND NOTICES.

URINARY AND RENAL DERANGEMENTS AND CALCULOUS DISORDERS. Hints on Diagnosis and Treatment. By LIONEL S. BEALE, M. D., etc. *Philadelphia: P. Blakiston, Son & Co.* 1885. 12mo.; pp. 365; cloth; $1.75.

Dr. Beale's opportunities for study and observation of the class of diseases considered in this volume have been exceptionally good. Consequently, the "hints" which he gives come with a weight of authority. There is much of practical value in the volume, though the manner of expression is diffuse and prolix sometimes to an extreme degree. The moral tone of the work, as expressed in the chapters on "Public Morality," "The Besetting Trial of our Boys," etc., is high and pure.

INORGANIC CHEMISTRY. BY EDWARD FRANKLAND, Ph. D., F. R. S., etc., etc., etc, and FRANCIS R. JAPP, M. A., Ph. D., etc. *Philadelphia: Lea Brothers & Co.*, 1885. 8vo.; pp. 693; cloth or sheep. (St. Louis Stationery & Book Co.; J. H. Chambers & Co.

This volume is adapted to the wants of the professional chemist, who must know and understand the different chemical theories, and must work out with mathematical exactness the formulæ for various chemical reactions, but is not a work of practical value for the physician or medical student.

Prof. Frankland's work with regard to potable waters is well known, and in this volume we find an excellent résumé of all that is known about the impurities of potable water, standard of purity, etc., but there is no account of the latest method of sanitary examination, for which the student or physician must look elsewhere.

INEBRIISM, A Pathological and Psychological Study. By T. L. WRIGHT, M. D., etc. *Columbus, O.: William G. Hubbard*, 1885. 12mo.; pp. 222; cloth.

Dr. Wright has given us in this little volume some solid facts with reference to the action of alcohol upon the organism. His views of physiology and pathology are mainly reliable and satisfactory; and the book is one of real merit and interest. The subject is one which commands the attention of every one who studies medicine or humanity.

Cutaneous Memoranda. By H. G. Piffard, A. M., M. D., Professor of Dermatology, University of City of New York. Third edition. *New York: William Wood & Co.*, 1885. 32mo.; pp. 268; cloth. (St. Louis. Jas. H. Chambers & Co.)

This is the third edition of the cutaneous portion of the little book called Cutaneous and Venereal Memoranda, edited by Dr. Piffard, in conjunction with Dr. G. H. Fox. We believe that Dr. Fox has entirely surrendered his part in the enterprise, and that the Venereal portion is now printed separately, or, rather, is an entirely new book, written by Dr. Morrow. W. A. H.

Practical Notes on the Treatment of Skin Diseases. Part I. Diseases of the Perspiratory and Sebaceous Glands. By George H. Rohe, M. D., Professor of Hygiene and Clinical Dermatology in the College of Physicians and Surgeons of Baltimore. *Baltimore: Thomas and Evans*, 1885. 12mo.; pp. 62; flex. cloth. (St. Louis, J. H. Chambers & Co.)

The author in his preface states that if this opuscule meets with a favorable reception, it will be followed at intervals by similar contributions. We sincerely trust that this little work will be so amply appreciated that the writer may be induced to continue the series, for we have rarely seen a book which so faithfully sustains the promise of its title page. In this first part are considered hyperidrosis, bromidrosis, prickly heat, seborrhea, acne, acne rosacea, sycosis and a few other disorders of the cutaneous glands. The descriptions of the various affections are clear and to the point, and the details of treatment are practical. Dr. Rohé has the happy faculty of saying all that is necessary to be said on a given subject in the fewest possible words. W. A. H.

The Principles and Practice of Medicine. By the late Charles Hilton Fagge, M. D., F. R. C. P., etc. Including a Section on Cutaneous Diseases by P. H. Pye Smith, M. D., etc. Chapters on Cardiac Diseases, by Samuel Wilkes, M. D., etc.. and complete Indexes by R. E. Carrington, M. D., *Philadelphia: P. Blakiston, Son & Co.*, 1886. 8vo.; Vol. I., pp. 1040; cloth.

Having been for twenty years connected with Guy's Hospital, as registrar, pathologist and physician, Dr. Fagge had unrivalled opportunities for the study of disease with reference to its pathology and clinical history. During the last twelve years of his life he devoted himself to the preparation of a treatise on the practice of medicine which should embody the results of his painstaking investigations and researches in the dead-house and wards of that

famous hospital, while not omitting the results of others' work, as given in contemporaneous medical literature.

The manuscript of the work had been prepared by Dr. Fagge except the two departments which are noted in the heading as being from the hand of the editor, Dr. Pye Smith and Dr. Wilks, when his labor was cut short by the hand of death.

In accordance with his own expressed wish the manuscript has been prepared for the press by his friend, Dr. Pye Smith, and we have before us the first volume of this most valuable work on practice.

In the first 150 pages are discussed General Morbid Processes, as contagion, inflammation, tubercle, etc. Then follows about 200 pages devoted to the Specific Diseases. Diseases of the Nervous System occupy nearly 450 pages, one third of that space being given to the various neuroses. The last 250 pages are devoted to Diseases of the Respiratory System.

The literary style is clear and interesting, and there is an immense fund of information contained in the volume.

PUBLIC LIBRARIES.—Chicago has the greatest library fund of any American city. The Newberry bequest will ensure three millions of dollars to the city for a library building and endowment.

The Lenox Library in New York was endowed with seven hundred thousand dollars. The Astor Library had a similar amount, which has been increased. The Pratt Library in Baltimore, for which Mr. Enoch Pratt gave a million dollars, was opened at the beginning of the present year, with a central building and four branches. Subscriptions for a public library in Philadelphia have reached encouraging dimensions. If a duly proportionate share of these funds are expended for medical works, the physicians of Chicago will be bountifully provided for.

ARSENICAL WALL PAPERS.—A bill has been introduced into the Massachusetts Legislature prohibiting the manufacture and sale of wall papers containing more than one-fourth grain of arsenic to the square yard, and permitting the sale of papers containing a less quantity. Another bill was submitted, prohibiting more than one-hundredth grain to the square foot.—*Bost. Med. and Surg. Jour.*, March 1, '86.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—How we Treat Wounds To-day. By Robert T. Morris, New York. Geo. P. Putnam's Sons, 1886; 12mo.; pp. 162; cloth; $1.00 (J. L. Boland, St. Louis).—Practical Anatomy. By F. D. Weisse, M. D., New York. Wm. Brown & Co. 8vo.; pp. 456 (222 plates ; cloth. (J. H. Chambers, St. Louis .—Treatise on Bright's Disease of the Kidneys. By Henry Millard, A. M., M. D., second edition revised and enlarged. New York. Wm. Wood & Co. 1886. 8vo. pp. 264; cloth. (J. H. Chambers, St. Louis.)—Seventh Annual Report of the State Board of Health of Illinois, with an appendix. Springfield, Ill.; A. W. Rokker, State Printer and Binder. 8vo.; pp. 613; cloth; mail.—Local Anesthesia. J. Leonard Corney, M. D., New York; D. Appleton & Co.; 8vo.; pp. 102; cloth. (St. Louis, S. L. Boland.) J. H. Chambers & Co.—Diagnosis and Treatment of Diseases of the Ear. Oren D. Pomeroy, M. D., New York; D. Appleton & Co., 8vo.; pp. 413; cloth. (St. Louis, J. L. Boland, J. H. Chambers & Co.)—Illinois State Board of Health. Seventh Annual Report. 1885. 8vo.; pp. 613; cloth.—A Treatise on Bright's Disease of the Kidneys. By Henry B. Millard, M. D., A. M. Second edition, Revised and Enlarged. New York; William Wood & Co., 1886. 8vo.; pp. 264; cloth.—Mind in Nature, for 1885. 8vo.; pp. 192; cloth.—Proceeding of the Nebraska State Medical Society. Seventh Annual Session. Held at Grand Island, May 26-58, 1885. 8vo.; pp. 385; cloth.—Practical Examination of Urine. By James Tyson, M. D. Fifth edition revised and corrected. With colored plates and wood engravings. Philadelphia, P. Blakiston, Son & Co., 1886. 8vo-; pp. 249; cloth, $1.50. (J. H. Chambers & Co.)---Operative Surgery of the Brain. By John B. Roberts, A. M., M. D. Philadelphia, P. Blakiston, Son & Co., 1885. 8vo., pp. 80; cloth; $1.25. (J. H. Chambers & Co.) —Puerperal Convalescence, etc. By Joseph Kucher, M. D. New York; J. H. Vail & Co., 1886. 15mo., pp. 311; cloth. (J. H. Chambers & Co.)—Text-Book of Ophthalmology. By Edward G. Loring, M. D. New York, D. Appleton & Co., 1886; 8vo.; pp. 367; cloth. (St. Louis: Jas. H. Chambers & Co.)—Medical Education and Medical Colleges in the United States and Canada, 1765-1885. Illinois State Board of Health, Springfield, Ill.; H. W. Rokker. 1885. 8vo.; pp. 137; paper.—Lectures on Syphilis. By G. Frank Lydston, M. D., etc. Chicago; A. M. Wood & Co., 16mo.; pp. 184; cloth. (J. H. Chambers & Co.)—Transactions of the Medical Society of the State of Pennsylvania at the Thirty-Sixth Annual Session, May. 1885. Pub. by the Society. Vol. XVII. 8vo.; pp. 514. paper.

PAMPHLETS AND REPRINTS.—Caulk's Dental Annual. No. IV. 1885-1886.—Report of Proceedings of the Illinois State Board of Health. Annual Meeting at Springfield, Jan. 21-22, 1886.—Medical Education and Medical Colleges in the United States and Canada. 1762-1885.

(Ill. State B. of H.)—Progress of Electrolysis in Surgery. By Robert Newman, M. D. (Gaillard's Med. Jour., Dec. '85.)—Overwork as Related to Insanity. By Orpheus Everts, M. D., College Hill, O.—Twelfth Annual Report of the Superintendent of the Cincinnati Sanitarium for the year ending Nov. 30, 1885.—State Board of Health Bulletin, Dec. 31, Nashville, Tennessee.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year, 1885.—Diphtheria and its Management, by Joseph E. Winters, M. D. (Med. Rec., Dec. '85.)—An Experimental and Clinical Study of Air-Embolism. By N. Senn, M. D. (Trans. Amer. Surg. Ass. vol. III. '85.) —Temperance School Books. By Henry Leffmann, M. D. (Polyclinic, Oct. '85.)—Trans. Med. and Chir. Fac. of the State of Maryland. Eighty-Seventh Ann. Sess., 1885.—Trans. St. Louis Obstet. and Gyn. Soc. 1884-5. (St. L. Courier of Med.)—Announcement of the 23rd Annual Course of Lectures in the Med. Dep't of the University of California, 1886.—State Board of Health Bulletin for December, '85, Nashville, Tenn.—The Climate of South Central Florida, especially for the Pulmonary Diseases of Women and Children. By J. M. Keating, M. D., Phila. (N. Y. Med. Jour., Jan. 23, '86.)

FATS AND WATER.—The following is from the "*Bulletin gén. de Thérapeutique*," Feb. 15, '86:

100 parts of vaseline absorb 4 of water.
" " lard absorb 15 of water.
" " mixture of 7 parts almond oil, with 3 yellow wax, absorb 23 of water.
" " like mixture, made with white wax, absorb 31 of water.
" " mixture of 7 parts of linseed oil and 3 of white wax absorb 48½ of water.
" " mixture 7 parts oleic acid and 3 of white wax absorb 60 of water.
" " lanolin absorb 105 of water.

HEALTH OFFICER'S FEES.—The fees of the Health Officer of the Port of New York have amounted, for several years past, to $50,000 more or less per annum. By a recent act before the legislature of that state it is proposed to fix the compensation of that office at $10,000 per annum, giving his first and second assistants $3,000 and $2,000 respectively, and allowing $6,000 for expenses of the office.

REPORTS ON PROGRESS.

OTOLOGY.

Report by M. D. Jones, M. D., St. Louis.

Abuse of the Politzer Bag in the Treatment of Ear Diseases.—Dr. Roosa contributes a paper on this subject. He says that Kramer first advanced the idea that the majority of ear complaints are of a nervous character. Later on, Wilde and Troeltsch combated this, and showed that the sources of non-suppurative troubles are to be found in the tympanum.

When Politzer made known his grand method of inflating the middle ear it was felt that much had been won in the therapeusis of aural catarrhs. But in the enthusiasm for the Politzer bag, the fact that the internal ear could be diseased, was lost sight of. Cases which should be left quiet are inflated day after day, to the discomfort of the patient, and with injury to the hearing power. In most cases a positive diagnosis of internal ear-trouble can be made, and so a hurtful congestion of the middle ear by use of the Politzer bag, be avoided. To use the bag without a positive indication is unscientific in the highest degree. To set the chain of ossicles in such violent motion, when that motion is perfect, is harmful.

A congested cochlea or vestibule will certainly be made worse by Politzerization. In such cases a test of the comparative intensity and duration of the tuning fork by osseous and aerial conduction, will be sufficient, and the patient spared the bag. It cannot be denied that, owing to the conviction that nearly all ear troubles are due to middle ear catarrh, practitioners confine themselves to use of the Politzer bag, with some attention maybe to the nose and pharynx.

In the same way before Kramer's time, all ear complaints were treated with syringing and a fly-blister over the mastoid process. We meet many cases of ear trouble, caused by exudation, hemorrhage or hyperemia of the labyrinth, where mercury, purgatives,

etc., will be of use, but never the Politzer bag. When the tuning fork is heard better and longer by aerial than by bony conduction, when noises are painful and the patient does not hear better in them, we can say almost with certainty, that the labyrinth or acusticus is affected, and we should refrain from using the bag.

Yet there are acute and subacute cases of middle ear catarrh, but they are the exception where aerial is better than bony conduction.

The diagnosis can be assured by one or two inflations of the middle ear. By means of the latter the pressure on the labyrinth is removed and osseous conduction becomes better than the ærial. These lines are written to urge the profession to employ the tuning fork more in diagnosing ear affections, and so avoid the indiscriminate use of the Politzer bag, which is so hurtful in lesions of the labyrinth and acusticus..—*New York Med. Press*, Dec., 1885.

Hernial Protrusion of the Mucous Membrane of the Tympanic Cavity Through the Meatus in some Cases of Otitis Media Chronica Suppurativa.—C. H. BURNETT warns us against the error of confounding these protrusions with granulation tissue or a small polypus. The hernia "is sensitive to the touch, is formed suddenly, does not bleed easily upon being touched, but bleeds profusely if wounded and yields quickly to the proper treatment, which however, is quite different from that applicable to granulations or to polypi." Polypi are not sensitive, bleed easily when probed and are removed without pain. Granulations disappear when small, under use of borax, and by cauterants when large. Hernia of the mucous membrane of the tympanum is made worse by any effort to cauterize or snare it off. The discharge is generally small, thick and purulent. There is no disposition to spontaneous hemorrhage from the hernia, but the writer has noticed a disposition that way in women at the time of their menses. These peculiar hernial protrusions, it must be noticed, have only been seen by Dr. B., in cases of women. The writer then recites the case of a lady under his care, who, while absent from home, applied to another physician for treatment. He, not recognizing the nature of the case, mistook the hernial protrusion for a polyp and proceeded to snare it off. The operation was very painful, caused great dizziness, with considerable hemorrhage, and an external otitis was set up. Nitrate of silver applications are not borne well by these mucous herniæ. "I have seen only two or three such cases, but the

peculiar liability to be mistaken for polypi or polypoid growths, as well as their resentful demeanor to the treatment applicable to true polypi or granulation, has induced me to record my experience with them."—*Phil. Med. Times*, Oct. 24, 1885.

On the Relation Between Diseases of the Teeth and of the Ears.—Dr. Sexton's monograph on this subject has been followed by many papers showing the harmful influence of dental irritation and bad teeth on the ears.

Dr. H. B. Bruns found perfect teeth in thirty-two per cent. of his cases, but the hearing was perfect in over forty-six per cent. In only nineteen out of fifty cases was the hearing bad on the side the teeth were. Bad teeth and bad ears are more common among scrofulous subjects.—*Arch. of Otol.*, 1885.

Treatment of Chronic Otorrhea by Perchloride of Mercury.—Dr. Wuerkner calls attention to the use of a one per cent solution of perchloride of mercury in chronic otorrheas, where the pus is very offensive. Later alcohol is added to the treatment, which the author found very successful. The risk of salivation must be remembered. We have many efficient remedies which are unattended with this danger, and it would be well to leave the mercury as a *dernier ressort.*—*Lyon Médicale.*

SURGERY.

Tracheotomy without a Tube.—Dr. J. Moran of Adair, Mo., writes us that recently in a case of membranous croup he performed tracheotomy, and having no tracheotomy tube he formed a bougie of slippery elm bark, dipped it into hot water to soften and lubricate it, and introduced it repeatedly into the wound in the trachea and through the glottis into the pharynx, thus, he thinks, removing the obstructing membrane and allowing readier respiration. Stimulants were freely administered and the child recovered.

It is not probable that this measure will be found of any very great value in other cases, though in this one Dr. Moran thinks it was the means of saving the child's life.

Dilatation of Phimosis.—C. W. Harwood describes as follows an extemporized dilator which he used successfully in dilating a phimosis in a young man æt. 24:

"It was made from an ordinary clothes-pin. I split the pin through to the end, and, cutting away to a proper angle the inner side of the shorter arms I had twin levers of the first class, which a rubber band at the point of bearing kept together. The end and edges of the longer arms were carefully filed smooth. I also provided half a yard of elastic cord which when wound around the shorter arms, gave the necessary power."

The ends of the longer arms well oiled were inserted between the glans and prepuce and dilatation effected by winding the shorter arms with the elastic cord. The application of a few drops of a four per cent solution of cocaine rendered the operation painless, and its repetition twice a week for a few successive times effected a permanent dilatation of the contracted orifice.—*Bost. Med. and Surg. Jour.* Jan. 28, 1886.

For Chapped Hands.—J. W. Swift recommends the following:

℞	Zinci oxidi,	℥i.
	Acid tannici,	
	Pulv. gum. camphoræ,	aa grs. xv.
	Glycerinæ,	ʒiv.
	Tr. benzoin	ʒss.

M. Sig. Apply.—*N. Eng. Med. Mo.* Jan. 1886.

OBSTETRICS AND GYNECOLOGY.

Abdominal Tumor from Menstrual Discharge Retained in the Uterus.—Spontaneous Recovery.—M. Desprès reported at a meeting of the Société de Chirurgie, January 20, the following interesting case: A girl, æt. 14 or 15, entered his service at the Charité last July with a tumor in her abdomen reaching to the umbilicus. This was pyramidal in shape, making a marked prominence, appearing more voluminous when the patient was erect than when recumbent.

M. Desprès examined her repeatedly without coming to any satisfactory diagnosis. The girl had never menstruated and he hesitated to make either a digital or specular examination per vaginam.

There was no suffering and no functional trouble and she remained a month under observation without observing anything ab-

normal in her health. Then an exploratory puncture with a capillary trocar drew off a few drops of blood which, when examined under the microscope, showed altered hematine and cells analogous to those of sarcoma. While the result of this puncture suggested the presence of a solid growth, a neoplasm, M. Desprès was not convinced. Inasmuch as the patient was not suffering he decided to wait a while. December 4, in the morning, suddenly there was a flow of black blood from the vagina, which increased during the day and at evening became a veritable flooding, while at the same time the tumor diminished in size. Here, then, was evidently a hematoma, produced by the retention of the menstrual blood, which had accumulated and caused the remarkable distention of the uterus. Doubtless the obstacle to the outflow of the blood was not very resisting as it had finally given way under the simple weight of the accumulated fluid.—*L' Union Méd.* 26, Jan. '86.

Prolonged Gestation.—Large Child.—Steele Bailey records a case in which, after a tedious labor, a child was born measuring thirty-three inches long and weighing seventeen pounds naked. The beginning of the last menstruation was March 1, 1885. Labor commenced December 30 and was completed January 2, 1886, a full month beyond the expected time.—*Am. Pract. and News*, Feb. 6, '86.

Prevention of Mammary Abscess.—H. C. Lawrence recommends fomentations with a solution of one ounce of carbonate of ammonia to a pint of hot water when symptoms indicate a threatening of mammary abscess. The hot applications should be renewed every five minutes and repeated in the same manner in three hours. —*Brit. Med. Jour.*, Dec. 19, '85.

Opium Poisoning through Mother's Milk.—Wm. T. Evans found it necessary to administer liquor opii sedativus quite freely for three days to a patient recently confined, on account of severe after-pains. No effect was produced upon her except to afford relief from the suffering. During the night of the third day after confinement the milk came into the breasts freely and the infant was nursed at 4 A. M. and again at 7 A. M. Prior to that time it had been fed on milk and water and gruel. At the time of the doctor's visit the infant was sleeping quietly and the nurse had not yet washed it. At 2 P. M. he was called to come in haste. He found symptoms of opium poisoning and in spite of all the efforts made

the child died from the effects of opium taken through its mother's milk.—*Brit. Med. Jour.*, Dec. 19, '85.

Retention of a Dead Fetus to the End of Pregnancy.—A woman, æt. 30, in good health had been delivered twice normally at term. Fifteen months later she had an abortion at three months without any trace being found of syphilis either in her or her husband. The last menstruation took place February 12, 1884; in July there was a slight muco-sanguineous flow. In August Dr. A. Martin diagnosticated a pregnancy at four months with death of the fetus. She presented herself again in the month of November, complaining of amenorrhea and not believing that she was pregnant. The uterus presented the size of the fourth month of pregnancy, thick and soft. Referring to the August examination it was thought that there was pregnancy with retention of a fetus dead in July. From November 15 to 17 there was abundant hemorrhage. November 17 the bag of waters was found in the cervix, greatly distended. Pelzer carefully extracted the ovum with the fetus, during which procedure a slight tear of the membranes gave issue to a small quantity of amniotic liquid, clear, but fetid. Placenta removed by expression. A putrid fetus, having preserved its form, nineteen centimetres in length; a cord sixty-five centimetres long.—*Centralbl. f. Gyn. Lyon Méd.*, Nov. 15, '85.

Jaborandi as a Galactagogue.—JOHN H. LOWMAN reports three cases in which the fluid extract of jaborandi was successfully used to stimulate an increased action of the mammary gland when the supply of milk was failing. In three other cases no satisfactory result was obtained. In the three favorable cases the effect was not permanent. The field of usefulness of this drug as a galactagogue is apparently limited to those cases in which the action of the gland is diminished by some influence which may be removed by tonic or hygienic treatment, in which case the effect of the jaborandi may be all that is necessary to restore the normal function.—*Cleveland Med. Gaz.*, Feb., '86.

Imperforate Hymen in a Girl 20 Years Old.—A girl of 20 years, who had never before menstruated was siezed with severe pains in the lower abdomen; emmenagogues only increased the pains. Upon her entrance into the hospital the hymen was found imperforate and pressed out by an accumulation of liquid behind. By rectal touch and palpation over the hypogastric region, the

uterus could be felt raised above the pubes as in a pregnancy of three months. After chloroforming, the hymen was at first lightly punctured to allow of a gradual escape of the liquid, then freely incised by a conical cut to evacuate all residue; the escape was aided by pressure over the abdomen. The contents were completely cleared out in three-quarters of an hour; the vagina was then washed out with antiseptic solution, hydrarg. bichlor., 1 part to the 1,000, and an antiseptic bandage applied over the vulva. The cavity was washed out every three hours. On the fifth day mercurial stomatitis appearing, a substitute for the sublimate solution was used. After twenty days the patient was dismissed well.—*Gaz. Hebd.*, No. 51, 1885.

For Sore Nipples.—E. Thomas approves the following:

℞ Zinci. sulph., - - - - grs. xv.
Acid. lactic., - - - - grs. xij.
Glycerinæ, - - - - ℥ij.
Amyli, - - - - ℥iij.

M. Sig. Apply with a camel's hair-brush after nursing, being careful to wash it off before putting child to breast.—*New Eng. Med. Mo.*, Jan. '86.

To Protect Surgical Instruments From Rust.—It is stated in the *Dental Eclectic* that a physician was called upon to perform an operation on a farmer who was injured while plowing in his field, and during the excitement of the occasion mislaid his case of instruments. Some months later they were found in the field. The case had become disjointed and all the instruments were rusty except an amputating knife, the handle of which was secured to the blade with zinc. The appearance of this knife suggested the possibility that galvanic action had prevented it from rusting.—*Technics*, March 4, '86.

Dr. W. H. Mussey, of Cincinnati. used to advise his students to have strips or sheets of zinc in their instrument cases in contact with steel instruments to protect the latter from rust.

Died on Duty.—During an epidemic of typhus fever in the penitentiary at Albany, New York, two physicians, of the volunteer medical staff, contracted the disease and died.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, January, 21st, 1886. Dr. McPheeters, President, in the chair.

Dr Gregory read a paper reporting a case of

FIBROID OF THE UTERUS.

Dr Engelmann.—We can hardly do more than compliment Dr. Gregory upon the success of his case under the existing difficulties; a difficult operation in itself, the result was endangered as he was not able to attend to the after-treatment himself, a feature often as important as the operatiou itself. The case is an unusual one, but there is no rule without an exception, and this exception serves, as exceptions often do, to prove the rule. The tumor was evidently a myoma; in fact, we generally use the term fibroid for all solid tumors of the uterus; we do not usually differentiate, but where we do, we find that the myomata are far more common than fibroids; very common is a combination, that we often find in negro women a decidedly pediculated outgrowth: this generally is a fibro-myoma, but when appearing as a thickening of the uterine wall it is distinct myoma and as the doctor states, it seems a hypertrophy, merely an enlargement of the uterus and naturally, this enlargement increases with every engorgement, every physiological congestion and development of the uterus. I have repeatedly seen those tumors which have caused no annoyance at other times, very much enlarged during pregnancy and rendering labor very difficult, with the involution of the uterus the tumor itself diminishing in size, to again enlarge with the next pregnancy. I have seen two ladies, one in two labors, with such tumors, and have known of two cases, where, being more of a distinct tumor, that is, not so much a diffuse enlargement of the uterine wall as a localized growth, expelled with the placenta. We must certainly thank Dr. Gregory for having done so much to establish this

operation here, because fibroids, the solid tumors of the uterus, have been rather a *noli me tangere*, and we have had very few successful cases.

Dr. Yarnall.—I will relate a case which I have recently had in charge, which in some respects is similar to Dr. Gregory's. A lady came from Dakota here to be treated and fell into my hands. She stated that she had aborted about six months before, since which time she had grown rapidly, so that she seemed to be as large as if she were at full term. When she aborted, she said a solid tumor had come away after the delivery of the after-birth, and that the physician who attended her at a remote place in Dakota stated to her that this tumor was a fibroid. Shortly afterwards the pains became intolerable; the agony was so great that life was intolerable to her. However morphine was used very sparingly; she took it at times. Her husband was a druggist. I dilated the neck of the womb with a Goodell's dilator, and pressing the fundus down and passing my fingers into the uterus I felt what I thought to be the nucleus or remains of what had been quite a large fibroid and concluded that I would try to cause its absorption by the use of ergot and sponge tents. The woman suffered considerably in this, but I dilated her womb with very large carbolized sponge tents, using some five or six of them, and while these were being used she seemed to suffer less than before. The womb was probably five inches in depth and a complete retroversion or rather retroflexion existed. At this time the remains of the fibroid seemed almost entirely to have disappeared; the uterus was, decreased in size, and she suffered comparatively little pain, but is extremely nervous. Now I cannot pass my finger into the uterus, as I could a short time after I used the tents, and I believe the remains of the fibroid tumor has disappeared by absorption under the use of ergot and sponge tents. The fact that this patient suffered intense pain after delivery struck me as being somewhat similar to the case related by Dr. Gregory. I am very happy to say that this woman has not become addicted to the use of morphine.

Dr. Coles.—The most remarkable feature in connection with this case that Dr. Gregory has related, is the fact that the uterus should have continued to enlarge after delivery. The nutritive impulse of pregnancy acts upon these tumors sometimes in a very remarkable manner. Dr. Gregory will perhaps remember a case I

had out at the hospital a year or so ago of a lady that became pregnant, and grew to an immense size. She went on to full term and was delivered. The movements of the fetus could be felt in this case with great distinctness, especially up under the ribs on the right side. The abdomen was more enlarged on the right side. Labor lasted three days when she was delivered of a child weighing eleven pounds, and after delivery the abdomen was left nearly as large as it should be at full term. The case was supposed to be one of twin pregnancy, one fetus being supposed to be extra-uterine, but upon being called in consultation and on examination of the case I was satisfied it was not so. The afterbirth being delivered, the doctor in attendance put his hand into the uterus and found it empty. I found this tumor occupying a central position, and being elastic, as Dr. Gregory has so well described, resembling fluctuation, I concluded that it was a fibroid growth or a fibro-cystic tumor of the uterus, and it had grown and developed during the nine months of pregnancy so far as she knew and so far as the attending physician knew. As it had grown to be a large tumor during that time, I expressed the hope that it would diminish after labor, and I think there was some shrinkage of the tumor; I don't think it was as large at the time I operated on the patient as it was at the time she was delivered. However, that was difficult to determine for the reason that the uterus itself would be considerably enlarged, immediately after parturition, and occupying a great part of the pelvic cavity, would thus make the tumor appear more prominent. Finally this patient became very impatient to have something done, and after five or six months the tumor was removed by abdominal section. This was a fibro-cystic tumor, the internal portion being filled with a grumous material, very much like curds and whey. I suppose originally, when this tumor commenced to grow it was a solid fibroid, but it grew so rapidly that the internal portion was to a certain extent cut off from its nutrition; because the blood vessels are always most abundant nearer to the surface, and in that way most of these fibro-cystic tumors are developed: after they get to a certain size the blood vessels supplying the capsule cease to supply the internal strata of the tumor, which consequently are not nourished, undergo metamorphosis and break down. Of course after a tumor gets into such a condition as that, you cannot expect it to disappear altogether; it would still be a cyst and would remain there for life. But we should expect the same process which causes the tumors to

shrivel up and grow less after the menopause would also cause that after the impulse of pregnancy had ceased the tumor would become gradually smaller; at any rate not give so much trouble. I am watching a case now with a great deal of interest. It is a woman who is just upon the verge of the change of life; she is 42 or 43 years old; her abdomen is very much enlarged; she is a bright mulatto, the wife of a wealthy man here in the city. She has been having from time to time a great deal of hemorrhage. Last winter she had an attack of pelvic cellulitis and at times suffers a great deal; then again for a month or so she will get along without much trouble; she always suffers great pain at the time of the menstrual epoch. It would be a formidable operation in her case to remove the uterus, and, as she is nearing the menopause, I have advised her to wait and see what effect that will have. If she is not relieved then the idea is to operate.

Dr. Engelmann.—This is the very class of tumors in the treatment of which we have a most powerful weapon in electricity, the solid fibroid or the firm myomata; not in its stage of rapid growth, but when it has reached such a period as has been referred to here: it is the very kind of a growth which yields most readily and satisfactorily to that treatment. I have had but little experience myself in the treatment of these growths with electricity, that is large growths, but with small ones it has invariably proven perfect in my hands. I have destroyed them rapidly, completely, and without pain, in my office. Three to six sittings suffice to remove quite a large growth, the patient feels no inconvenience, comes to the office, pursues her usual vocation. This may seem incredible, but it is nevertheless true. It may be said that fibroid sometimes disappears without our aid. This does happen. I myself have had five cases of larger or smaller fibroids, from the size of a child's head to a size greater than that of twin pregnancy, which either in consequence of treatment or change of life have been overcome. In two of the cases the tumors were completely reduced, and disappeared entirely, or almost so. I have never published the cases, and yet they are sufficient in number to form a basis for an opinion in regard to the possibility of reducing uterine fibromata and myomata; two of the most striking cases were seen by others, one by Dr. Hodgen and one by our lamented Sims; the case which Dr. Hodgen saw with me I noted accurately, made drawings and measurements, so that no possibility of a mistake exists. The case was seen repeatedly

by Dr. Hodgen, and the suffering was such that an operation was determined upon. The patient was brought to the hospital; her condition was good, the day was fixed, and Dr. Parvin, who was then in Indianapolis, even came to witness the operation, but she was seized with hemorrhage so terrible that none of the remedies in our hands could check it; the sesquichloride of iron applied to the cavity even had no effect. We finally, after trying various styptics and using all the remedies known to us, succeeded in controlling the flow, but she had suffered so much, and become so weak that an operation was out of the question. She was again put upon the ergot treatment, which she had been under before, and we soon noticed a most decided softening of the tumor, which was followed by a diminution in size, and in the course of a year nothing but the thickened ligaments and tissues in the vicinity was to be felt. The most striking case I ever witnessed however was an absolutely solid fibroid larger than any twin pregnancy. I gave the patient ergot; I punctured the mass and tried to inject ergot and iron into the tumor. It was my first case and I was very anxious to achieve a result, but although I plunged the trocar into the growth to a depth of five or six inches, I could of course inject but a few drops, because the tissue was unyielding. I treated her for some two years and succeeded in relieving the patient whenever obstruction of the bowels, or difficulty in micturition occurred. The tumor itself grew no worse, yet we both grew tired of the treatment, and I ceased my visits. The lady was keeping a large boarding house on Market Street, and had three or four girls working for her: this was perhaps eight years ago. When I saw her last, some three or four years ago, she was keeping a boarding house on Chouteau Avenue, and her figure had so changed that none of the neighbors had noticed any deformity. I have not examined her since, but, as I stated, no casual observer could notice any deformity in her figure, whilst before, of course, she was of an enormous size.

Dr. Cole.—What was her age?

Dr. Engelmann.—I cannot state exactly; I should judge, however, that all this must have occurrod during the time of the menopause, as also in one other case in which the tumor was reduced to about the size of an ordinary pregnancy; this was by the ergot treatment. All others were in uteri during the period of full physiological activity; one was that of a young lady some 25 years of age, who had a small submucous tumor about the size of a wal-

nut in the uterine canal where it caused a great deal of annoyance; the patient was a daughter of a prominent legal man; that was reduced and the trouble relieved by the ergot treatment. Now the treatment of all these cases was continued for a long time. In a galvanic current properly applied we have a means far more rapid in its results than the ergot, almost as sure as the knife, and a great deal less dangerous. It is, of course, a powerful current only which will accomplish the result, and the operator must be perfectly familiar with the method of treatment. I will say that in the ordinary treatment with electricity we use from four or five to perhaps fifteen or twenty milli-ampéres, whilst for the destruction of these tumors we use a hundred and over. I feel that we should not leave these cases without an attempt at overcoming them by this treatment, because even the early method of galvanic treatment may result well and will at least have the effect of relieving hemorrhage if it is persisted in for a long time. In order to use a current of sufficient intensity we must of course have the necessary appliances and be familiar with the method. When the use of electricity is once well understood, the fibroid will no longer be so ugly a monster and so little amenable to treatment. The knife has not proved very successful in this country, although better results have been achieved abroad. It is still very dangerous compared to the galvanic.

Dr. McPheeters.—You speak of the ergot treatment; do you mean you inject the tumor with ergot?

Dr. Engelmann.—No sir; I have injected tumors with ergot, but I don't know that I have found greater benefit, or as much benefit, as by other means. I mean either the hypodermic injection of ergot in the abdominal walls or the giving of ergot. The fluid extract nauseates the stomach so soon that I occasionally use ergotine pills, but I rely a good deal upon ergot in one form or another internally.

Dr. Coles.—I suppose that for a long time past all these growths have been treated more or less with ergot. Of course the hemorrhage which we almost always have in these uterine growths would prompt us to use ergot. My experience with ergot in these cases, however, has not been satisfactory for the reason that the doctor has just alluded to; the patients become so utterly disgusted with it that you cannot continue it for a sufficient length of time, and in doses that will be sufficiently felt by the uterus to accomplish

any very great good. Patients will rebel against the giving of ergot; the stomach rebels and finally her spirit rebels. We all know what a nauseous drug ergot is and how difficult it is to administer it. Dr. Emmett, in his work, speaks very highly of this agent; he seems to have accomplished a great deal with it in a great many cases. I admit a great deal can be done with ergot if it is given as we give digitalis; if we give it regularly by the clock and keep the patient under its influence, but it takes a good while to obtain its physiological effects, and when the patient is under its influence it should be steadily maintained. Not only might we expect to accomplish good by inducing an atrophy of the growth itself by ergot, but there is another very essential point, we can often force the uterine tumor to become more or less pedunculated. It seems to me that there are very strong indications for the use of ergot, and in which it ought to be used under any and all circumstances and pushed to the extent to which it can be tolerated, but this is a difficult matter unless you have the patient in a hospital, immediately under the eye of the attendant, who will see to it that the instructions are obeyed. I find that ergotine is very efficient, and can be given in the form of capsules and will often answer a very good purpose; in fact, where we cannot give ergot for a long time, we can substitute ergotine for it. If I have a case where there is active hemorrhage I give fluid extract of ergot. But if I have a chronic case I generally order ergot in the more inoffensive form so as not to get the patient prejudiced against it. Now, in regard to the injection of fluids, of ergot or iodine, into these very large tumors, I would have some hesitancy about introducing a trocar four or six inches into a tumor and injecting iodine into it. I have seen so much trouble result from the injection of iodine in growths elsewhere and beneath the skin, and knowing that it is such a powerful agent, I should hesitate about injecting it in any place from which I could not draw it out or wash it out if necessary. That you cannot do if you inject it into a solid tumor; at least if you do, you leave enough behind to start a very considerable inflammation, and it is certainly liable to kill the patient. For that reason I should be very slow in doing anything of that sort. In regard to electricity, I suppose the idea is to change the nutrition of the growth or tumor, and in that way something might be accomplished. I have been trying ever since I first entered the profession to develop all the good there is in electricity, but I must confess

that after twenty-five year's experience I am quite as much at sea with this agent as when I began. Electrical therapeutics fill many volumes, yet they have taught us comparatively little of practical value. The whole subject is yet in its infancy and the laws of physiological chemistry have yet to be developed and placed upon a solid practical basis, so far as their relation to electricity is concerned.

Dr. Engelmann.—I had a small tumor, not a fibroid, but I suppose a soft myoma perhaps three inches in length, with a moderately broad base obstructing the os, just appearing outside of the cervical canal.

The lady had heart disease and an operation was out of the question, of course. It would have been a very simple matter under chloroform, but she could take no anesthetic, and I treated her for a short time, considering what was best to do; trying to bring the tumor down, bring the pedicle out, using electricity as it has always been used, and finally I succeeded in destroying the tumor without giving her any more pain then would have been occasioned by the ordinary gynecological treatment in the office, allowing her to walk home after each sitting. The mass of the tumor was destroyed in four sittings during one week.

Dr. Coles.—How did you apply the treatment to the uterus which was as large as a twin pregnancy?

Dr. Engelmann.—In that case I used a large needle and ran it right into the growth.

Dr. Coles.—Wouldn't you be afraid of producing sloughing of the tumor?

Dr. Engelmann.—The sloughing produced is confined to the tissues along the line of puncture; this stilette connected with the negative pole is not a cautery, it is an electrolytic needle; there is no general sloughing, but in larger masses a destruction where the stilette touches and for perhaps a week the point of puncture is noticeable; for two or three days a canal remains, and for some time longer you can see the depression where the puncture was made, but the canal is closed. No such sloughing occurs as that which you would produce by a cautery; the effect is totally different; it is rather a dry chemical cautery, and resembles more the results of nitric acid, though it is not quite that, having in addition this absorbent effect. I have seen a tumor on the hand,of the size of a walnut,destroyed in two sittings, by simply passing an ordina-

ry sewing needle through it; it is not destroyed as you destroy tissue with a hot iron, but an absorption is also produced. I will say, if Dr. Coles does not think anything of the use of electricity in gynecological practice, that I have the highest regard for it from the successes I have myself had, and from the successes I have seen accomplished by its use in the hands of others. Formerly electricity was used without a knowledge of its strength whilst now we *dose* it. An article in the last number of the Obstetric Journal which no doubt most of the gentlemen have noticed, is worthy of attention as the writer speaks of the number of cells he uses, but says nothing to show what resistance was offered by the electrode he used; the strength of the current necessary to accomplish the object is not given. I may take six cells of one battery to destroy tissue, and again I may use twelve cells of the same battery with a different electrode and produce no perceptible effect, so that the number of cells is no gauge of the intensity of the current.

Dr. McPheeters.—Do you mean to say the effect is not increased by increasing the number of cells?

Dr. Engelmann.—Yes, the relative effect is increased by increasing the number of cells, other things being equal, but the result depends as much upon the the electrode used. You may take six cells with a given electrode and produce an effect; and then take twelve cells of the same battery with another electrode, say simply a thicker sponge, and the patient will scarcely feel it.

Dr. Coles.—I would like to ask Dr. Gregory if he has had any experience with electricity.

Dr. Gregory.—I hail with delight every suggestion that points to success by unbloody surgery. Recently I have been recommending young women who come to me with tumors of the breast, where I don't feel certain of the diagnosis, where I am hopeful that there is no pointing toward malignancy, and yet there is a mental condition that is uncomfortable, I have been advising them to try electricity. Now I am not able to report any results, but I am glad to find that the subject has occupied the minds of other men. I don't think surgery is at its best when it cuts; I think surgery is at its best when it cures without cutting. For a long time I have been hoping that more surgical results would be attained without cutting than by cutting; or, at least, I have hailed with great delight everything that pointed to the abridgement of cutting, lessening the bloody part of surgery; and I cannot but attach some importance to

what Dr. Engelmann says to-night about electricity. In this particular case which I have reported, I did not urge the operation, the operation was urged upon me; I tried to escape it, and I felt when the doctor announced that there had been an abortion, that certainly the withdrawal of the circulation from the uterus would lead to some arrest, some limitation of this growth, some relief, but certainly the symptoms were all intensified after the miscarriage, and it struck me as being a most extraordinary case, because I cannot reconcile the fact with the ideas which I have always entertained relative to the relationship between uterine growths and an active condition of the uterine functions. I can understand why when vascularity is increased, tumors will increase, but I cannot understand why they should not decrease when the vascularity is withdrawn; there was certainly a strange condition of things here; and when I learned that the tumor was growing worse and worse, I was astonished. Now it strikes me that this idea of Dr. Engelmann of introducing needles directly into the substance of the thing is getting very close with the current, and it occurred to me that we might increase the strength of the current to a point we have no conception of; that we don't know how to gauge it, and there must be a good deal to learn as to how much we can use and the use of appliances in the most direct way possible; it seems to me that some benefit must come from this source, and I can but feel that the subject is one worthy of our very best efforts.

Dr. Briggs.—I wish Dr. Engelmann would say a few words in regard to the results attained by others in Europe.

Dr. Engelmann.—I do not wonder that gentlemen seem incredulous. The results are marvelous, and when a gentleman with the experience of Dr. Mundé tells us that it takes six months of treatment to accomplish results which can be achieved in two or three sittings of from 5 to 15 minutes by the new method, it does indeed seem strange. It is almost incredible that in a few sittings you can obtain a most decided result; yet I have obtained these results almost daily. All know the difficulty in reducing a large uterus which had been enlarged for years by chronic metritis, yet in a few sittings I have reduced such uteri. I was led to adopt this practice by the marvelous results which I saw last Summer in the clinic of Dr. Apostoli in Paris, who has made the use of electricity in gynecology a specialty. He treats ladies for all afflictions, not only uterine diseases, with electricity; the great mass of his patients be-

ing those afflicted with uterine disease. The famous painter, Rosa Bonheur was on the point of death, enfeebled by hemorrhage from a uterine fibroid which could not be checked nor could the tumor be removed by the knife, and by the electric current the great artist was not only relieved but cured. Quite a number of such cases I have seen treated by him, large fibroids: one had reached to within four inches above the navel; when I saw it, it had been reduced to four inches below. His patients are treated at the clinic, and being poor walk there and after treatment walk to their distant homes again. Now this is startling and surprising. Dr. Mundé in his articles speaks of these results and doubts them, thinks them overdrawn. I have seen them with my own eyes. I have seen cases which have repeatedly presented themselves for treatment. I have seen cases of cellulitis with large masses in one side of the pelvis, which have been bedridden for six months or a year walk to his clinic and walk back; I have seen these large masses reduced in these way.

Dr. McPheeters.—Have you used electricity in amenorrhea and dysmenorrhea?

Dr. Engelmann.—Yes, sir.

Dr. McPheeters.—I was going to say that the experience of Dr. Coles seem to have been the experience generally with regard to the application of electricity, but lately there has been a revival.

Dr. Engelmann.—To show how little we have known before in regard to the use of electricity we are now told that if we wish to excite hemorrhage in amenorrhea we should use the negative pole to the uterus. If we wish to check hemorrhage we should use the positive pole to the uterus. Dr. Mundé tells us it makes no difference which we use in a given case.

Dr. Coles.—Those things were taught fifteen or twenty years ago.

Dr. Engelmann.—Nobody ever followed it up, however. I have used it years ago, and I have controlled post partum hemorrhage with it when everything else failed.

Bequest to the Pathological Society.—Dr. Middleton Goldsmith agrees to give at once $2,000 to the New York Pathological Society as soon as it shall become an incorporated body, and to supplement this by a bequest of $3,000 more.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated meeting, Dec. 29, 1885.

Cheesy Degeneration.—Tuberculosis.

Dr. Dean presented specimens having a bearing upon some cases which Dr. Bryson reported (vid. Feb. Courier), and illustrating, on quite a large scale, the same cheesy necrosis.

The patient was a man about twenty-four years of age. His father lived to the age of fifty-four and was healthy; his mother died at the age of thirty-four, pregnant, disease not known; he had one brother twenty years of age, healthy; seven other children of the same family had died at an early age. When about eight years of age, this patient received some injury to the knee and was laid up for some time. When about thirteen years of age he received an injury to the hip from which morbus coxarius resulted, and he never recovered from that; the joint was anchylosed when he came to the hospital, and for two or three years past he had had various bad symptoms, among them frequency of urination, pain in the region of the kidneys, etc. Evidently from his own history he had had cystitis, which still existed at the time he came to the hospital. The urine was quite turbid, contained a very small amount of albumen and no casts proper. The man was very much emaciated and near the point of death when he came to the hospital; he recuperated there for two or three weeks, and then ran down again. At the post mortem the lungs were found to be infiltrated with tubercles; the peritoneum was everywhere thickly studded with them, and the intestines were matted together and united by adhesions; there were adhesions also of the lungs to the pleura. The kidneys were almost completely degenerated with large cavities filled with cheesy necrosed material, cheesy necrosis, and the prostate contained several alveoli that appeared to be empty. The ureters were dilated in parts along their length and constricted in others, and filled in places with this same cheesy material, as is commonly the case. Both testicles appeared to be entirely free, as were also the mesenteric and bronchial glands. The liver was enlarged but no tubercle was discovered in it. While syphilis is commonly considered one of the causes of cheesy degeneration or necrosis, both of the cases which he had reported, and specimens from which he had exhibited, although containing these large amounts of caseous material, he was satisfied were free from syphilis.

Dr. Bryson said in regard to syphilis as a cause of cheesy degeneration, that in none of the cases which he had observed of cheesy inflammation or tubercular disease, following *clinically* about the same course so far as he had been able to observe, could he make out syphilis; there were no evidences of syphilis. Syphilis is less likely to attack the prostate gland and kidney than perhaps any other part of the body. It is a question whether any syphilitic disease of the prostate gland ever has been observed. Sometimes what has appeared to be a mucous patch just within the urethral meatus has been said to be observed; but even that is questionable.

As to the parts of the genito-urinary tract attacked by this inflammatory disease, all inflammatory conditions tend to attack the prostate gland, the kidneys and testicles: this forms no exception: at any rate the pelvis of the kidney, the prostate gland and the testicle are especially liable to take on inflammatory conditions, and it seems not so much a question of the inflammation extending from one to another as of the liability of extensive inflammation making symptoms appreciable to the physician or surgeon examining it. He asked if the diagnosis in the case was made before death.

Dr. Dean thought the assistant put waxy degeneration as the probable diagnosis.

Dr. Bryson said the point to which his paper was mainly directed was that of diagnosis. It is of the greatest importance as far as the treatment and prognosis are concerned. In many of these cases a great deal of observation over a good length of time is necessary before one can make a diagnosis. It is not difficult to detect a chronic prostatitis or even a chronic epididymitis, but it is quite a different matter to diagnose a cheesy inflammation or cheesy necrosis or tubercular process, whatever this peculiar kind of inflammation may be called by the different pathologists. There is no certain test distinguishing its course from that of other inflammatory conditions; the only means of diagnosis is by making frequent examinations of the parts within reach; by the use of the microscope and test tube, we aid ourselves as much as possible. Passing the sound in cases of this kind does the patient more injury than good. Constitutional treatment is valuable especially malt and hypophosphites.

One other point is relative to the cleanness of these alveoli of the prostate and of the kidney. In the case at the hospital in

which urethrotomy was resorted to, (referred to in his paper) they could not only look into the cavity, but put their fingers into it, and it was the cleanest tubercular cavity that he had ever seen. In some recent experiments that have been made the experimenter took decomposed fluids and sprayed them into the lungs of tubercular patients, and he thought it cleansed the cavities. Dr. Bryson thought it might be that the decomposition of the urine might have something to do with it; at any rate the flowing of the urine over these cavities seemed to cleanse them and keep them cleansed; and it is a rare thing in these cases to see a urethral discharge. In one patient, the one noted in the paper as sent by Dr. Steer, it was possible with a very short sound to enter the prostate and turn it in the prostate gland before reaching the bladder. Another case, reported in that paper, had called at the doctor's office the day before. He had been out in the northwest on a sheep ranch in the hope of getting benefit from that climate; he went out, and came back much worse. The urine was even cloudier than when he left. When the patient was under treatment before, the doctor saw great improvement in the condition of the urinary organs as indicated by the urine, from the use of hypophosphites, cod-liver oil and malt. Probably the cheesy necrosis commenced in this case in the kidney, and attack the prostate secondarily.

Dr. Homan asked what effect, if any, the cavity in the prostate had upon the stream of urine.

Dr. Bryson said in the case sent by Dr. Steer it had apparently none whatever. There was no mechanical obstruction; no irregularity in the flow. In prostatic enlargement the patient will pass more urine or more frequently during the sleeping than the waking hours. That does not characterize these causes to the same extent. The case of a distinguished engineer, a specimen in whose case I presented to the society some years ago, exhibited one peculiar feature which he had never seen able to account for; in that man's case the prostatic symptoms and a symptoms of disease referable to the neck of the bladder were very marked, so marked indeed that three different surgeons sounded him more than once each for stone. Afterwards those symptoms disappeared, and there was nothing to indicate the presence of stone; that is there was no pain at the end of micturition, no micturition on taking exercise, and no blood at the end of micturition. Clinical observation indicates further that after passing a certain stage, the inflammation

becomes less active, in certain parts of the genito-urinary apparatus, and especially so in the prostate gland.

Dr. Bremer said it seemed to him that there are distinctive characteristics between a tuberculous inflammation and a syphilitic inflammation, and the distinction is that the former always tends to break down, whereas the latter tends to form adult connective tissue with gummata. It is true these will break down sometimes, but as a rule they do not. The gummata, again, are more isolated; they do not grow so thick as in the case of tuberculosis. Both of these inflammatory tumors, it is true, are granulomata, but they have a different clinical and pathological course.

This is a tuberculous kidney, because in the syphilitic kidney there is a tendency toward the formation of mature connective tissue, and in consequence a shrinkage and strangulation of the parenchyma. That, in his opinion, is the line of demarcation between syphilitic products and tuberculous products. If there were syphilitic granulomata or syphilomata, which by the way is a bad name, an unfortunate name, the probability is that these tumors would be localized; they would not be disseminated, but there would perhaps be some large gummatous tumors that might undergo cheesy degeneration, but there is never this general infiltration in syphilitic inflammation.

Dr. Bryson asked what is the relative behavior of syphilitic and tubercular inflammation in regard to the blood vessels?

Dr. Bremer said that both are apt to produce amyloid degeneration of the arteries, but this is not characteristic of either syphilis or tuberculosis, because in suppuration of long standing there is also amyloid degeneration, and especially in chronic sore legs; whenever there has been an infiltration of the lower extremities with suppuration, we are pretty sure to find amyloid degeneration of the arteries surrounding these inflamed portions.

In the tubercular inflammation the blood vessels are simply destroyed, whereas in the syphilitic process they are strangulated by the proliferation of the connective tissue surrounding the blood vessels and parenchymatous structures.

Dr. Bryson said the question occurred to him whether that would not make some difference in the appearance of the tubercular and syphilitic ulcers.

Dr. Homan asked whether there is not hemorrhage in connection with this tuberculous process?

Dr. Bremer thought that the hemorrhage depends entirely upon where the tubercular process is situated. In the lungs we know very well that the tubercular process sometimes gives rise to profuse hemorrhage; this certainly, however, is not due, as has been generally supposed, to the ulceration of large vessels, but to a formation of miliary aneurisms accompanying the tuberculous inflammation. In the kidney there might be hemorrhage, and probably in such a case as that there has been a time when there was hemorrhage.

Dr. Dean said there was in this case.

Dr. Bremer said there is scarcely any tuberculous inflammation either in the kidney or lungs where hemorrhage does not take place at one time or another. In the lung we know it takes place in consequence of the miliary aneurisms; in the kidney he was not positive as to that.

Dr. Homan asked might not some of the effused blood undergo this cheesy transformation.

Dr. Bremer thought not. He considered all this cheesy matter to be broken down tubercles. It would have been interesting to examine a specimen post-mortem for tubercle bacilli,and *inter vitam* the urine for tubercle bacilli. If tubercle bacilli were found in the urine the diagnosis would be clear at once. For a long time after the discovery of the bacillus, investigators failed to discover bacilli in the urine, but finally they had been found in the urine and this is a very valuable means of showing the nature of the disease.

Dr. Bryson said his clinical observation exactly agreed with the remark made by Dr. Bremer in regard to hemorrhage. He had not seen any of those cases where the urinary tract appeared to be involved in the tubercular process, without there being evidence of blood in the urine. Generally when the prostate is attacked, one of the first symptoms is bleeding, with pain at the end of micturition, generally attracting the surgeon's attention and leading him to sound for stone, and many of these patients are examined over and over for stone.

Dr. Dean thought that this cheesy necrosis is usually preceded by fatty degeneration. Microscopic examination of a specimen of this necrosed material found nothing: it was completely anhistic; if there had been any bacteria they had completely disappeared. Dr. Bremer saw the necrosed gland and the tumor, and also the

cicatrices and circumscribed tumors, if we may call them such, on the liver, and he was quite strongly impressed that the case was syphilitic; but there was no history of syphilis or tuberculosis in t ase; it seemed to be a case in which there had been inflammation and necrosis afterwards. In both syphilitic changes and necrosis of tuberculosis the appearances are so similar that, so far as the contents are concerned, a microscopic examination would not show the source, unless it was shown by the bacilli; even then it might be not possible in a given case to determine whether it was syphilis or tuberculosis.

Dr. Bremer said in that case there was just one gumma, if it was a gumma at all, just one large mass, and that is the character of the gummata undergoing cheesy degeneration.

He had been inclined to consider that to be syphilis because in no condition is the lobulated condition of the liver so strongly marked—that is to say, with such large lobules, as in the syphilitic liver. The toper's liver, the hob-nail liver, is characterized by small nodules, whereas the syphilitic liver is split up by a number of larger lobules.

Dr. Funkhouser read a paper (Vid. p. 295.)

IDIOPATHIC INFLAMMATION OF THE TESTICLE.

Dr. Bryson asked whether Dr. Funkhouser referred to epididymitis or orchitis.

Dr. Funkhouser said that while he used the expression, inflammation of the testicles, because there are some cases in which orchitis is the result of this irritation, whatever that may be, he would include epididymitis under this head, inasmuch as it is most common.

Dr. Bryson asked what means the doctor used to diagnosticate strictures?

Dr. Funkhouser said he used the bulbous sound.

Dr. Bryson said he had never seen a true metastasis from the parotid gland to the testis, nor any true gonorrheal metastasis. He had seen epididymitis and orchitis arise in the course of parotitis; he had also seen epididymitis and orchitis arise in the course of gonorrhea tolerably frequently, but while he had noticed that occasionally the urethral discharge was lessened somewhat while the epididymitis or testis was inflamed, he had never known it to disappear, and particularly he had never known the gonorrhea to lose its virulent qualities.

In the 131 cases of stricture of which the doctor spoke, he would like to ask what percentage presented testicular inflammation.

Dr. Funkhouser said in all of them.

Dr. Bryson said his question was intended to bring out what proportion of cases of chronic urethritis, of what is generally called stricture, that is detected by the bulbous bougie, were accompanied with inflammation of the testis. Dr. Funkhouser's experience varied very widely from his own. He sees quite a number of cases of stricture, but rarely sees a case of inflammation of the testis that can, in his opinion, be clearly referred to the urethritis; not only that, but when the attempt is made to dilate these strictures, there rarely is any inflammation of the testes; at least this is so at the clinic of the St. Louis Medical College and in his private practice. The point in the testis at which he had most frequently observed the results of inflammation was the tail of the epididymis. He not unfrequently sees cases where one testis is involved at that point, the result generally, almost invariably, not of chronic urethritis, or even of chronic prostatitis, but of a gonorrheal attack. He had not thought stricture of the urethra a very frequent disease. Indeed, he had been accustomed to teach for a year or two past that stricture is not a very frequent disease. He does not believe with the modern school of urethral pathologists; but believes that at and below the bulbo-membranous portion of the urethra, the bulbous sound or bougie does not give very reliable evidence.

He observes that Sir Henry Thompson, whose manipulating powers are quite phenomenal, and whose experience is very large, does not rely on the bulbous sound to any considerable extent there. Gonorrhea is a most common disease. A large number of people in cities and a considerable number in the country who occasionally visit cities have gonorrhea. He had been somewhat struck with the infrequency of stricture following gonorrhea, as compared with the number of cases of gonorrhea that exist in the community. Certain portions of the urethra are more dilatable than others; the urethra is not a tube but a closed valve, never open except in obedience to applied force, conveying all things from behind forwards unless also in obedience to applied force, and a valve whose walls and whose surroundings are highly endowed with nerves. Force applied to the muscular tissue might cause it to contract, in which case it would be very clearly demonstrated that the bulbous sound might not give a fair estimate, especially when we have strictures of wide calibre.

Dr. Dean thought that the matter had been long since settled with regard to the micrococcus of gonorrhea and that any one who has a first class microscope could make them out without any difficulty.

Dr. Bremer regards the gonococcus as highly diagnostic. It can be demonstrated in every case of specific urethritis. He recently had a case of urethral chancre which had all the clinical aspects of a beginning gonorrhea. He made an examination of the discharge for the gonococcus but did not find it, and pronounced it a urethritis not due to gonorrheal poison. Of course he did not ascertain the nature of the trouble at once. He was still in doubt as to that, and took it to be a simple urethritis due, perhaps, to irritation. It was very patent afterwards, in about four or five days, that I had to deal with a chancre of the urethra. He had made an examination of a case of urethritis in a patient with paraplegia, who had been impotent for about ten years; he was down on his back and had bed sores; and he acquired a urethritis. Examination did not find any gonococci and the doctor put it down as a case of simple urethritis. In Germany a decree of divorce has been pronounced because of the fact that gonococci were found in the discharge; this shows the confidence of those people in the diagnostic value of the parasite.

Dr. Funkhouser said that he desired to call attention in the paper to the connection between stricture and inflammation of the testicle. Cases had come under his observation which had been treated by other physicians, in which no examination of the urethra had been made: there were unquestionably strictures in those cases, and all those cases would undoubtedly have gotten well and the discharge stopped, even had no injection or internal medication been used, simply by using sounds. His observation was that most of these cases were followed or accompanied by inflammation of the testicles. The point he wanted to make was that in a great many cases of stricture there is an inflammation of the testicles, and the part it plays is a mechanical one. It serves to dam back the urine, to close the valvular openings and ejaculatory ducts; the passages are dammed up with septic material, and the micrococci pass in this manner along the vas deferens to the epididymis.

Vaccine Virus.

Dr. Grindon thinks that we should congratulate ourselves on the fact that in this country the use of bovine virus is so general;

in fact, we hear very little nowadays of the arm to arm vaccination, that is still practised very largely in Europe, almost to the exclusion of animal vaccination. Of course there are several points in regard to which the animal vaccine is preferable, though some continue to prefer the humanized lymph. Perhaps the most important point, in his opinion, is that it has been definitely ascertained that the efficacy of the lymph runs out after a number of cultures through the human organism, and lymph that has been long humanized is not as efficacious in conferring immunity against variola as that which is not distant so many removals from the fountain head in the cow. Dr. Hardaway, in his admirable little book on vaccination, states that in the early days of vaccination, when the lymph still preserved all its original efficacy, cases of post vaccination small-pox were much rarer than they were later. For instance in the city of Copenhagen after a general vaccination of all the inhabitants, for thirteen years there was not a single case of small-pox, whereas there had been a great deal of small-pox prior thereto. In a town in Bavaria, a place of ten thousand inhabitants,for nine years there was not a single case of small-pox; and so in various places. Perhaps the most striking instance is that between the years 1810 and 1818, if he remembered, in France there were vaccinated about two and a half million persons, and there were only known to be seven cases of small-pox during that time; however, some ten years later, beginning about 1828 or 1838 and extending over a period of ten years more, there occurred between five and six thousand cases of post vaccination small-pox, showing that in that short time either the quality of the lymph had run down, or else physicians had become very much more careless in performing the operation of vaccination. A writer in the *Fortnightly Review*, in an article which came out in May 1881, states that in England amongst the class of persons vaccinated with humanized lymph in the fifth and sixth decades of this century, taking the cases having three or more cicatrices, and those are the better protected, the number of cases of small-pox occurring in persons so protected was not so great by half as the number occurring in similarly protected persons in the seventh decade; and taking those even better protected, taking those having three or more cicatrices in the seventh decade there were three times as many cases, thus establlshing what most of us would be ready to admit, that lymph long humanized runs down and that a return to the fountain head is often ad-

visable. Probably the method we pursue in this country is the best, using the lymph directly from the heifer in every case. There is one objection which has been urged, that is the fact that spurious vaccine is more common. Many of the gentlemen present would remember that about two years ago a number of points were distributed by the Health Department which were found to be charged with spurious vaccine virus. The sore formed instead of being a vesicle depressed in the centre, had a distinct areola or elevation, a granular like surface not unlike a raspberry. The course of this eruption was longer than that of the vaccine vesicle. It takes longer to come out, and Dr. Grindon believed that many persons vaccinated with this substance, whatever it may be, this spurious vaccine, supposed that they were protected, and that a number of such cases contracted small-pox and were sent to the quarantine hospital.

Stated Meeting January 26, 1886.—Dr. Leete in the chair.

Dr. Jones read a paper (vid. p. 307.) reporting a case of

MIDDLE EAR DISEASE COMPLICATED WITH KERATOSIS OBTURANS.

Dr. Gamble had seen and treated the case on several occasions, and regarded it as one of the most interesting cases that he had ever seen. He agreed with the author that it was strange that a polyp of that size obstructing the external auditory canal and interfering with the discharge from the middle ear had not produced a graver result than it had. Nature seemed to have overcome the obstacle by a fistulous opening, allowing the discharge to find a vent in that way, and undoubtedly saved much suffering to the patient and possibly loss of life. It seemed also strange that it had not produced septicemia, as he had learned that when the polyp was removed the odor from the middle ear was almost intolerable; that some pent up discharge there had undergone decomposition. An effort was made to close by compression the patulous opening after removal of the polyp. Compressed cotton was inserted with considerable force into the external meatus, and it seemed at one time to be pushing the tissues before it and thereby narrowing the orifice of the canal; and he was looking to see it closed by that

means with granulations. Some granulations forming at the base of the polyp would eventually close the canal and necessitate further operation, but by the use of caustics and other remedies the granulations were reduced and the patient got along very nicely.

Dr. Leete asked Dr. Jones if this plug was made up as nearly as possible of laminated epithelium without any mixture of the natural secretion of the ear.

Dr. Jones said that it was altogether epithelium; there was no wax in the plug at all. This mass filled the canal, and the pus not being able to find its way out from the meatus, burrowed its way and came out in front of where the polyp was attached in front of this plug, which was three-quarters of an inch long and filled almost the whole canal.

Dr. Leete asked if the nature of such a plug is such that there is no ready solvent for it.

Dr. Jones said that he didn't think there was any thing that would dissolve these plugs. Dr. Burnett, at the Pathological Society in Philadelphia, showed a plug that he had had in glycerine or water for six months without undergoing any change at all. These plugs are as hard as a rock.

Dr. Leete asked if Dr. Jones had ever tried softening them by putting glycerine over them and then applying heat and moisture.

Dr. Jones had never applied the heat but had used the glycerine. Bicarbonate of soda and glycerine are used very commonly for the removal of plugs of cerumen; but they will not do any good with these plugs of epithelium. He thought the peroxide of hydrogen might be of use with these plugs. He had never used it in such a case, but it breaks up pus very readily.

Dr. Leete would not expect a mass of epithelium to resist glycerine. It lays hold of hardened epithelium as found upon the hands and feet very readily and softens it, relieves it of all harshness and makes it manifestly softer.

Dr. Jones was disposed to think that the mass that Dr. Burnett removed was placed in glycerine for six months, and it had no effect whatsoever.

Dr. Leete thought that would make it look as if the epithelium had undergone some peculiar change which made it resist the action of the glycerine. The hardened epithelium which we find upon the hands and feet in the form of calluses and corns does not resist it.

A Neurosis.

Dr. Engelmann reported an interesting case the nature of which was not yet clear. The patient was a sufferer from uterine disease, but mainly from various neuroses which have resulted from that trouble. She had been seen by a number of our best physicians, and each one gave a very different view of the case. Her symptoms were varied, and, in fact, her troubles were such that a pelvic disorder was not thought of. She had insomnia and pains in various parts of the body, dimness of the eyes, especially at the time of the period, a haziness or cloudiness of the eyes; she had palpitation of the heart; then there was a tumor near the liver, so that one gentleman was upon the point of cutting down upon this tumor, thinking, as her brother had died of cancer, that this was probably malignant, and if it was not malignant that he would remove it.

She seemed to be most relieved by the general use of electricity, applied to the spine and to the joints. When she walks or moves there is a clattering of the bones, a peculiar noise, difficult to describe. This noise makes her very nervous. The first person who determined the uterine disease was Dr. Tuholske, who felt so sure of the diagnosis that he sent her to Dr. Engelmann for treatment. He found precisely the conditions which Dr. T. had detected, that is, that the peculiar tumor in the vicinity of the liver was a movable kidney which passed over a greater part of the abdomen in its various movements. An enlarged, diseased and displaced ovary, with contracted, inflamed ligaments, was at the bottom of her various symptoms. The kidney, by the appliances which the doctor had used, had gradually been confined to rather a small space near its proper bed; and the movements of the kidney itself did not any longer seem to cause heart trouble, although the organ was at times very sensitive and apparently inflamed, because its shape would change and its size vary. He ceased general medication, confining himself to the uterine and ovarian troubles. However, in order to control the annoying vomiting he gave her cocaine, which for a short time seemed to have an effect, but insufficient to warrant its continuance. The treatment of the pelvic disorder at first seemed to be without success, but it was now fairly yielding, and all her symptoms, the pain in the back and head, pains in the stomach, nausea, vomiting and insomnia seemed to be better. Nausea and vomiting had been constant. She said she would wake

up in the night and vomit. It was apparently not due to gastric disease. The trouble in the joints appeared not to yield. Electricity had been tried before, but he tried it again, placing large electrodes adapted to the shape of the knee, one on either side, passing a mild constant current through them. This seemed so far at least without any benefit. The result so far obtained hardly seemed to warrant the idea that this is a reflex neurosis, although her other symptoms seems to be due to uterine disturbance.

Both knees and a number of other joints are affected. The patient is about 24 or 26 years of age, and married, but has never conceived; there is a history of uterine disease before marriage, but her troubles gradually grew worse.

The floating kidney was detected as such only a month ago; before that time it was supposed to be a tumor of some kind; by some it was regarded as a malignant growth.

She generally has quite a high fever at the time of her monthly sickness.

Dr. Leete asked if she had ever ever suffered any violence which might have caused the dislodgment of the kidney.

Dr. Engelmann answered in the negative and, said it was not such a dislodgement as would be expected from violence; it has the most liberal playground he had ever seen and instead of going as generally seen down in the right side, (if he recollected aright it had always been the right kidney he had seen,) this kidney inclined to travel toward the region of the left kidney.

Dr. Tuholske said the case had been to him an intensely interesting one. The patient had been referred to him not for treatment but simply for diagnosis of a tumor, in regard to which the question of operation had come up. Gentlemen of ability had examined her, and one had had her under his care for a number of months, and had told her that it was a tumor, the character of which was doubtful, hence he remained passive as far as the treatment was concerned; the other gentleman was doubtful, too, but thought it was probably malignant. He was more aggressive, quite bold, and urged an operation, at least an exploratory one into the abdomen, and he hoped to find something that he could cut out.

On the first examination, without inquiring into the history of the case, knowing nothing of her neurotic peculiarities, he examined the tumor, and, in trying to outline it, felt it slip through his fingers away from the right lumbar region below the liver; and

while trying to see what were the connections, he found he could just move it along with his fingers even to the left of the umbilicus; then percussion on the right lumbar region showed the absence of a kidney there; and showed one present on the left side; and, as floating kidneys are most frequent in women, there was nothing in the world to make the diagnosis difficult. He placed the tumor fairly in position, and had a pad constructed to hold it there. Then so far as that was concerned she got some relief. He asked a question or two further and the woman gave such a history of nervous symptoms as would take away one's breath. From the history he was satisfied that much of her trouble was neurotic in its origin. An examination of the uterus and ovaries discovered a pathological condition decided enough to warrant the conclusion that the cause of the irritation was there, and he thought at that time that not much good would come from the electric treatment of the ovaries, which were enlarged and tender, fixed in a fairly normal position. Considering her unusual suffering he considered the propriety of removing the ovaries, and remarked that after a thorough trial of everything else in the shape of treatment applicable to the uterus and ovaries, if no success attended that, then the subject of the removal of the ovaries should be entertained, because the woman was thoroughly miserable with herself and with her surroundings. It was with that view he called on Dr. Engelmann, stated to him his diagnosis and the possibility of his urging, after a trial of the treatment, the removal of the ovaries, of course readily leaving to him, knowing his ability and skill in those matters, to first exhaust all the means available for the treatment of the uterus and ovaries. He had not had much faith in the success of the treatment, but was glad to hear it was becoming successful, since it was likely to save her from the risk of this formidable operation.

The peculiar symptoms in her joints were hard to explain as neurotic. She is a very lean, lank, tall woman, with long bones, very little muscle and long ligaments, thoroughly relaxed, giving a good deal of play to the joints, almost enough to make some of the joints appear insecure. He did not know whether they were sufficiently so, that the simple contact of the surfaces awkwardly brought together would produce the sounds, but it might account for the pain. It would be quite a triumph of gynecological surgery if local treatment should bring her out of this condition.

In regard to the kidney it was larger than a normal kidney, in fact so large that he wondered at first whether it might not be a horse shoe kidney. This floating kidney was a little painful, more so than the normal. Floating kidneys are especially predisposed to malignant degeneration, and it had occurred to him that there might be a cancerous growth in this kidney.

Dr. Leete asked whether Dr. Tuholske could compare that noise made by the joint with anything we are familiar with.

Dr. Tuholske said he had sometimes noticed a somewhat similar noise made by the tendon of the vastus externus slipping over the trochanter major.

Dr. Leete asked if there was reason to believe that there was an unusually small quantity, amounting almost to none, of the natural lubricant, so that the joint was very dry.

Dr. Tuholske said that as a rule a dry joint is a tight joint, not a loose, lax one.

Dr. Nelson said that there was under his care in the medical clinic of the Post Graduate School a mulatto about 28 or 30 years old, who gave a history of having indulged in excessive venery, in whose joints there was a somewhat similar noise, hardly a creaking, but such a sound as Dr. Tuholske described, as if a tendon slipped from the bone; and it was accompanied by pain; this was noticed in the wrist joint and in the fingers and at times also in the knees. It was possible that as in the one case it was accompanied by pelvic disorder so in the other it might be occasioned by trouble about the genito-urinary organs. In this case there was very noticeable dryness of the hands and also of the feet, having absolutely no moisture on the surface.

Dr. Engelmann thought that in the treatment the best results had been due to electrolysis, to a diminution in the size and rectification of the position of the uterus, passing the needle into the tissue to a depth of an inch or an inch and a half parallel to the canal, placing the other pole over the inflamed ovary and ligaments. The canal was exceedingly tortuous so that those who had attempted to enter it found it exceedingly difficult or impossible, but this is also straightened now by the same means, by passing one pole into the canal its entire depth, and the effect is very different from that of merely passing the sound. It is a permanent one. The uterus, cervix and body, are very decidedly reduced in size now by this treatment by electrolysis, and the pain and sensitive-

ness in that region has been successfully treated by the Faradic current. The patient has been married six or eight years.

Dr. Leete asked if sexual excesses might not be an important factor in the trouble.

Dr. Engelmann thought it not probable. There was a history of pelvic disease before marriage, and the very common result in such cases is that the disturbance in the ovaries or ligaments is aggravated after marriage, and that is precisely the condition here.

Parietal Abdominal Sarcoma.

Dr. Tuholske said that about two months ago a physician asked him to see with him a woman about 30 years of age, who had been confined a month previously and who had, it was said, an abdominal tumor, which had been large enough months before to give the physician who attended her in her confinement the idea that he was dealing with an ovarian tumor, and in fact he had proposed an ovariotomy. Dr. Tuholske said that for some time he had made up his mind, whenever he had any tumor in the abdominal cavity to operate upon, not to invite anybody to assist at an ovariotomy, but at a laparotomy; it is always safest to speak of laparotomy first. He examined this patient who was then a month or two after confinement, badly emaciated, not suffering greatly, but confined to her bed, unable to move about, on account of swelling in the abdomen. The history of the case was obscure, the woman being a Russian, but from what he could understand the history was something like this: About twenty months ago she had a little swelling in her belly. He could not define its location any more closely than that. This was tender, and small, and painful, which however gave her very little trouble and remained fairly small for quite a length of time until she became pregnant. During her pregnancy the swelling became quite large, according to her description probably six inches in every direction; was not painful to the touch nor growing very rapidly. After her confinement it again started growing rapidly. On inspection there was a tumor standing out and covered by the stretched abdominal parietes, with large veins crossing it in every direction, being highest opposite the umbilicus, gradually lessening in size towards the pubes, much more rapidly outwards towards the ribs. Taking hold of the mass he could move it, but could not tell whether he was simply moving the tumor and parietes together or moving the tumor by itself with a free and easy base. Palpation gave a very elastic sensation and

obscure fluctuation. He thought by aspiration he might find some fluid, and by removing it he could get a better hold of the tumor and move it about. Before aspirating, however, he made a careful physical examination. The tumor seemed much more fixed at the upper extremity than at the lower, and had much more the appearance of coming from the liver than from the pelvis, nor was there a history of its growing from below upwards, but so far as could be learned, she noticed it first some where about the middle of the right side of the belly. Percussion would elicit nothing, nor would palpation. The tumor was not painful to the touch and the woman's general health had not suffered from the presence of the tumor although it was poor; she was living in squalid, dingy, miserable quarters, and dependent upon the charity of her neighbors; and he thought that was enough to account for her poor condition; she was not suffering particularly; she could eat very well if she got something good.

The tumor did not reach the median line and the doctor aspirated somewhere about the height of the umbilicus, and probably four inches and a half or five inches to the right of it on a straight transverse line from it, and through the aspirator there flowed a fluid that looked like blood—uot bright red blood, probably a little darker; nor exactly like venous blood, a little more chocolate colored, quite fluid, however. He removed through the aspirator quite a quantity, using a soda bottle to receive it in, and emptying ten such. The withdrawal of the fluid, which he then thought was blood and afterwards proved to be so, produced a marked change in the outline of the tumor, and showed that it was absolutely confined to the right side. With the reduction of the size of the tumor it became flatter, not shorter, and the margin of the rectus muscle stood out so he could get his hand under it. It decreased in size so far as the external line was concerned, and felt, while not exactly the shape and curve of the semi-lunar line of the abdominal parietes, somewhat like it, or like a separation of the flat abdominal muscles. He could not but think then that the tumor was in the parietes of the abdomen and not in the cavity at all, situated in the sheath of the rectus muscle, and had stretched the parts as much as possible, not beyond the linea alba which was firm and straight, but rather the semi-lunar line of the right side. The amount of blood removed made him think that possibly there had been some injury to the rectus muscle, a tear in the deep epi-

gastric artery or some of the arteries coming from above the external mammary, and that this blood had escaped into the sheath of the rectus muscle, setting up for itself an inflammatory border, making a sort of extravasation cyst within the parietes. He didn't know how the blood would get there otherwise, and be confined to that particular outline. But he was not quite sure that this was the condition. So he waited a month, thinking that that tumor would fill up, if it was an extravasation cyst; if it was due to a bursted blood vessel, at the next aspiration he ought not to have fluid blood again, but such fluid as would escape into such a cavity, maybe of a more serous character; and he concluded that if he did find that sort of fluid he would lay it wide open and get his hand into the cavity and see what there was in it. He put the woman in a ward in the Post-Graduate School Hospital, and nine days ago he aspirated again at four distinct points and got nothing, and as he plunged the aspirator through the mass he felt that it was going through much more solid tissue than he had struck before. However, towards the median line he thought he could detect some fluctuation, and for the fifth time he introduced the aspirator and got some fluid of a yellowish color, with a very little admixture of blood, and removed forty-two ounces. While the color was all right, so far as the previous diagnosis was concerned, the aspirator needle passing through this solid tissue showed that, although it was something corresponding to it, it was not an extravasation cyst anyway. The tumor was much reduced in size, but he thought he would find out what it was, and made an exploratory operation, cutting down from the umbilicus to the pubes in the median line of the rectus muscle, and found the fibres of it spread out. The parts bled very freely, but he kept cutting down until he found a hard mass covered with a thin, translucent membrane, and making a small incision into it he recognized a sarcoma and took off a small piece. It was evident that he could not remove it, because one surface reached to the parietal peritoneum, and the other surface was right under the skin; and even if he had been able to peel out the mass he would have had the parietal peritoneum separated from the balance of the parietes and only have the skin to cover the belly. In order to see how far the growth extended he made a large enough opening to get his fingers in, and traced the tumor along the parietes in towards the brim of the pelvis at the median line. He returned this sarcomatous mass, ar-

rested the hemorrhage, and there was a good deal of it, cleaned the parts out, sewed the parietes together, and put the woman to bed, and, so far as that was concerned, she was as well as if the abdomen had never been opened.

Dr. Engelmann said he would only add his impression upon seeing the patient. He thought, at first, that it was an ovarian tumor, but the appearance of the face was not such as we expect to find in a case of ovarian tumor, nor in the case of a malignant growth. The sexual organs were perfectly healthy and undisturbed. The right ligament seemed undisturbed; the uterus was normal, movable, and seemed in no way connected with the tumor. There was one point in connection with the case the doctor had not mentioned, and that was that when she was pregnant the tumor was on one side of the abdomen and the child on the other.

Illegitimate Children.—Dr. Bertillon reported to the Fifth International Congress of Hygiene and Demography at the Hague in 1884, that:

Of 1,000 unmarried women in Ireland, 6 had offspring; in Holland, 9; in Switzerland, 11; in France and England, 17; in Italy, 20; in Sweden, 22; in Prussia, 23; in Denmark, 29; and in Bavaria, 41. Of illegitimate children, there were, of 1,000 births in Ireland, 30; in Holland, 38; in Belgium, 53; in England, 61; in Prussia, 66; in Italy, 73; in France, 75; in Denmark, 76; and in Bavaria, 96.—*Sanitarian*, March, '86.

Ambulance and Hospital Huts.—The prize of 5,000 francs, offered by the Empress of Germany for the best ambulance and hospital hut has been awarded to the Danish Portable Doecker Hut, made in Copenhagen. These are made of specially prepared water-proof and fire-proof wood, easily erected and taken down, at once strong and portable, and readily cleaned and disinfected.

Mustard Plaster.—*The Popular Science News* says that if mustard is mixed with the white of an egg instead of water it will draw thoroughly without blistering the most delicate skin.—*Technics*, March 4, '86.

SELECTION.

THE METRIC SYSTEM AND OUR APOTHECARIES' WEIGHTS AND MEASURES.

By Oscar Oldberg.

The writer has for several years been an earnest advocate of the adoption of the Metric System in this country for medical and pharmacal purposes. Upon closer study, however, of the special requirements of medicine and pharmacy as to weights and measures I am led to believe that the decimal system does not fulfil these requirements. The question as to what system of weights and measures we shall use in medicine and pharmacy is one of such great importance that the facts herein presented ought to receive earnest consideration.

Believing that my past activity in attempting to further the introduction of the Metric System in the practice of medicine and pharmacy in the United States is somewhat generally known, and in view of the fact that my efforts in this direction have for several years been the subject of warm praise from some and equally unstinted condemnation from others, I deem it proper to publish briefly the reasons which have impelled me to reverse my opinions. I have not arrived hastily at these conclusions, and I have to frankly acknowledge that my former position on this question was possible only from my then insufficient knowledge of some of its important but not so obvious bearings.

In order to construct a practical system of weights and measures for the purpose of the physician and pharmacist it would seem to be of the highest importance to determine what would be the most suitable and convenient smallest unit of fluid measure. The fact cannot be ignored that fluid measures are necessary in the administration of liquid remedies, and that, therefore, consistency demands the use of fluid measures also in prescribing, dispensing and preparing medicine. The *drop*, no matter how variable in size it

may be shown and admitted to be, still remains a convenient and familiar object by which to not only fix in the mind an approximate quantity but to actually measure doses. Any quantity less than a drop would clearly be an impracticable unit; whilst the *minim* has by long experience been found a most useful unit, *solely because of its nearness to the average drop of most liquids.* The Metric System has no unit of fluid measure less than the cubic-centimeter, which is equal to 16.231 minims and therefore much too large. Fractional parts should be avoided as much as possible, and hence a minim is none too small.

The next step is to fix upon a weight unit which shall be commensurable with our smallest unit of fluid measure. The nearest approach then to a drop of water would be about our grain. The Metric System has nothing to offer but the decigram, equal to about one and one-half grain.

For fixing the strength of medicinal preparations, especially liquids, and for the easy subdivisions of doses, it is most convenient to have units of weight and measure which shall be not only parallel and commensurable, but also capable of several progressive subdivisions by two into smaller units without fractions until the number *one* is reached. The Metric System has several parallel and very nearly commensurable units of weights and measures—the litre and kilogram, the decilitre and hectogram, the cubic-centimetre and gram, etc.—but, being a decimal system its units are divisible by two into the next lower units only once without striking fractions. Our American apothecaries' weights and measures are in this respect preferable to the Metric System, and if so modified as to render the several units (already parallel) commensurable, our ounces, drams and grains, and fluidounces, fluidrams and minims, would give us a very satisfactory system. This might be done by making our troy ounce exactly equal to the weight of one fluid ounce of water at the most common room temperature—that temperature at which we ordinarily do our work in our laboratories and drugstores—our dram exactly equal to the weight of a fluidram, and the grain equal to the weight of a minim of water at the same temperature. If, in addition, we should change the subdivision of the dram and fluidram so that one dram shall be sixty-four instead of sixty grains, and a fluidram sixty-four instead of sixty minims, this system would be perfect. We would then have:

1 U. S. Apothecaries' Ounce = 1 U. S. Apothecaries' Fluidounce.
1 U. S. Apothecaries' Dram = 1 U. S. Apothecaries' Fluidram.
1 U. S. Apothecaries' Grain = 1 U. S. Apothecaries' Minim.

Also

64 Grains = 1 Dram.
8 Drams = 1 Ounce.

And

64 Minims = 1 Fluidram.
8 Fluidrams = 1 Fluidounce.

The ounces would be divisible into halves, quarters and eighths, expressed in drams without fractions, and into sixteenths, thirty-seconds, sixty-fourths, etc., expressed in grains or minims without fractions; and the drams would be divisible into halves, quarters, eighths, sixteenths, thirty-seconds and sixty-fourths, expressed in whole grains or minims.

In the Metric System we find it inconvenient to write for any of the subordinate units. The gram and the cubic-centimetre are universally used. Hence fractions are unavoidable. Of late it has been shown that the use of the decimal point is fraught with danger to human life, which certainly ought not in any way or degree to be dependent upon a frequently misplaced, misinterpreted, omitted, duplicated or illegible dot.

Whilst we have assumed that the gram and cubic-centimetre are commensurable, it is to be remembered that a cubic-centimetre of water weighs one gram only when at the unusual temperature of +4°C. and *in vacuo*, and that unfortunately the kilogram of the Archives is too light by about nine grains, so that in reality a litre of water at 22°C., which I assume to be the mean temperature of our work rooms is not 1,000 grams but only about 997.4 grams.

The value of our fluidounce should be first fixed. It might be made exactly equal to 32 cubic-centimeters, in order to provide at once a convenient and simple connection between the Metric System and our apothecaries' weights and measures without materially altering the present value of the fluidounce.

If we assume that the wine gallon is 231 cubic inches, then our present U. S. fluidounce is equal to 29.573 cubic-centimetres. To increase it to 32 cubic-centimetres would be to make it about $\frac{1}{13}$ larger than it now is. Inasmuch as the fluidounce is a unit referred to almost exclusively for stating the quantities of diluents and menstrua, this change would surely not be a serious one. If we should then make our apothecaries' ounce the exact equivalent of the weight of one such fluidounce of pure water at 22°C.,

weighed in air, this would be equal to 31.91 grams, instead of 31.1035 grams, which it now is. This would amount to a difference of about $2\frac{1}{2}$ grains for every 100 grains, or about $2\frac{1}{2}$ per cent, or, in other words, the present troy ounce would be $\frac{1}{40}$ smaller than the new ounce.

Next, we could divide the new fluidounce and the new ounce into eight fluidrams and eight drams, respectively, the differences between the old and new drams and fluidrams being, of course, proportionately the same as between the old and new ounces.

Finally, the new fluidram might be divided into 64 new minims, and the new dram into 64 new grains. The new minim would then be exactly $\frac{1}{16}$ cubic centimetre, or about $\frac{1}{70}$ larger than our present minim; and the new grain would be only 2.46 milligrams (or about $\frac{1}{27}$ smaller than our troy grain.

A new fluidounce equal to 32 cubic-centimetres, and a new ounce of 32 grams, would not be as desirable as a fluidounce weighing exactly one ounce when referred to water at 22°C. (71.6° F.), as 32 cubic-centimetres of water does not weigh 32 grams either at +4°C., or at +22°C.

In my little manual of Weights, Measures and Specific Gravity, just published, these data will be found more fully commented upon. On pages 45 and 46 of the manual referred to, the exact differences between the several corresponding old and new units are stated, and on page 36 it is suggested that if these reciprocal relations between our unit of weight and measure should be established our old grain weights and fluid measure graduates could still continue to be used until gradually replaced by new ones without the slightest confusion or disadvantage. The difference between the new ounce and the troy ounce would be less than 13 grains; between the new dram and the old dram about $1\frac{1}{2}$ grains; between the old grain and the new grain the difference would be as if 26 grains had been taken instead of 27. As to the fluid measures, the differences between the old and the new fluidounce would be less than 40 minims; between the old and new fluidram less than 5 minims; and between the old and new minim the difference would be as if 40 minims should be taken instead of 41. Yet, with these trifling modifications in the accepted values of our units of weight and fluid measure we could at once insure: 1. Parallel units; 2. Commensurability; 3. Divisibility of the larger units into halves, quarters, eighths, sixteenths, etc., expressed in whole num-

bers of the lower units, and thus the avoidance of fractions to the greatest practicable extent.

Even if our present apothecaries' weights and measures should remain unchanged they are to be preferred to the Metric System, because they are so nearly what they ought to be that it would seem to be a grave error to discard them in favor of a system which has been found to be so hazardous by reason of its unavoidable decimal fractions and decimal point.

In the absence, however, of any fixed legal standards for the United States, why should we continue to use the troy ounce with the peculiar (apothecaries') subdivisions adopted by the London and Edinburgh Colleges, and their special apothecaries' fluid measures (all of which we inherited from England in colonial times and which have since been abolished in Great Britain) without either legalizing them, fixing values of their units, or modifying them so as to serve their special uses as perfectly as possible, especially as those weights and measures are used by no one but physicians and pharmacists?

A new, complete and harmonious system of weights and measures for this country, such as would merit permanent adoption, would, of course, be preferable; but in view of the prevailing diversity and confusion, it may be considered sufficient to remodel the special weights and measures used in medicine and pharmacy independently of those used in general commerce.

The plan here suggested is not the only one which seems practicable; but if we would have the weights and measures of pharmacy bear simple relations to the weights and measures of modern science, the methods open to us are to either make our fluidounce exactly 32 cubic-centimetres, and to make the troy ounce equal to the weight of a fluidounce of water at whatever may be deemed the most suitable standard temperature, or to make an apothecaries' ounce of such size that 32 of them shall correspond to the weight of a litre of water at 22°C. One litre of pure water at 22°C., weighs 32.067 of our present apothecaries' ounces, and the size of the ounce might be slightly increased so that only 32 ounces (instead of 32.067) shall represent the liter. Then the fluidounce could be made to represent the volume of one ounce of water at 22°C. The first named plan is preferable.

Either of these plans would connect our weights and measures with the Metric system and its primary basis. If we were to at-

tempt the construction of an entirely new system from beginning to end, based upon either the seconds pendulum or quadrant of the earth, ignoring all weights and measures at this time in use, the task would probably be accomplished in vain if at all.

Food Analysis in France.—The Académié des Sciences has a laboratory in Paris for testing the quality of food and drink sold in that city. Specimens of wine, beer, cider, milk, chocolate, coffee, tea, etc., are examined, colors used on toys and in confectionery, pork suspected of being affected with trichinosis, etc. Analysis to determine whether the article presented is free from adulteration is made without charge; but a small fee is charged if it is required to determine the proportionate composition. There are twenty inspectors who visit taverns and groceries, provided with microscope and simple chemical tests, and examine many articles of merchandise on the spot, only taking to the laboratory such articles as afford some evidence of adulteration. Twenty-five chemists are connected with the laboratory, each one having his own department. About 25,000 samples are analyzed annually at an expense of about $40,000.

St. Louis Medical College—Changes in the Faculty.—Several very important changes have been made in the faculty of the St. Louis Medical College. Profs. L. Ch. Boisliniere and E. F. Smith, for many years respectively occupying the chairs of Obstetrics and Gynecology, and of Clinical Medicine, have resigned, and the following gentlemen have been elected to the designated positions: J. M. Scott, M. D., Prof. of Obstetrics; W. L. Barret, M. D., Prof. of Gynecology; Jno. Green, M. D., Prof. of Ophthalmology; W. E. Fischel, M. D., Prof. of Clinical Medicine; Jno. P. Bryson, M. D., Prof. of Genito Urinary Surgery; B. J. Primm, M. D., Prof. of Descriptive Anatomy; Dr. Mudd's chair is now designated as that of Surgical Anatomy and Clinical Surgery.

A New Disease.—*Neighbor*—George R. died yesterday afternoon. *New Comer*—His death was quite sudden, I believe, wasn't it? *Neighbor*—Well, I thought so, but I heard this morning that he had been ailing for some time. He had a brightness of the kidneys

DOMESTIC CORRESPONDENCE.

NEW YORK LETTER.

Another View of Post-Graduate Instruction.—State Medical Examiners.—The International Congress.—Pasteur's Treatment of Hydrophobia.—Ophthalmia in Public Institutions.—Cocaine.

New York, March 8, 1886.

While the older members of the profession here, during the past month, turned their attention to the International Congress and legislation to procure state examiners of medical graduates, the younger men, in whose minds the problem of how to earn a living in this overdoctored city, is uppermost, have been contemplating with grave solicitude the opening of the spring term and the continuation of that already begun, in the various institutions for the instruction of graduates. They know that they must be the sufferers by this mania for post-graduate clinics, which is now raging in New York and Philadelphia. The Courier and the leading journals of this city have spoken with unqualified approval of this system of practical work for the young man who has been literally crowded through the college, if it be a good one, or allowed to slip through a poor one, and is unable to take a hospital course.

There is, however, another side to this question, and it is daily being more realized in this city, *not* by the older practitioners who have already gathered a practice, but by those who have recently begun, and it is but fair that we should hear what some of these have to say. Our city, like most others, is abundantly supplied with dispensaries; to these there seems to be no objection, although it is well known that "working the dispensary" as it is called, is a source of considerable profit to a young man holding a position in one of them. One of them tells me that he averaged twenty dollars a month during the past year from dispensary cases desiring private treatment; another one, not connected with anything, says: "I've

located too near the Polyclinic." This one is more disposed to translate "P. C." as Patient Catcher, than PolyClinic. A third says: "The Post Graduate has taken nearly all of my patients, in moderate circumstances, most of whom *have* and would be willing to pay for attendance, if that sign (indicating the Post Graduate) did not tell them they could be well cared for, Free!! Some of these institutions will pay patients to present themselves at clinics, and it is a poor one that will not furnish medicines and carfare to those living any distance away, so I don't wonder they pass my office." Many of these patients are Germans, earning and saving, but who detest doctors no less than their bills.

I do not wish to give the impression that the profession here is opposed to these schools, for we are not; but the above facts are before us young men all the time; and we ask for suggestions how best to remedy this one defect of this otherwise valuable system of instruction.

Physicians, through the entire state, are exercised over steps which have been taken for the appointment of State Medical Examiners. Such a law is greatly desired and needed. There are annually being turned out, in this and neighboring states, hundreds of men who should be termed *licentiates*, rather than graduates. In this matter the Southern States have preceded us, North Carolina especially, as nearly thirty per cent of its recent graduates have been refused admission to practice by the State Board of Examiners. I fear New York would fare even worse. At a recent meeting of the Homeopathic Society here, their committee vigorously opposed co-operation with the "regulars" in procuring the passage of a bill to enforce examinations by state physicians; in this action the committee was endorsed by nearly all the members. If your state has no such legislation, the sooner the profession demands it, the sooner will graduates cease to be asked "what school are you a graduate of ?", an inevitable question, if one applies for any position, or even enters a competitive examination for one here. Next to this question of State Examiners, the International Congress has claimed our notice. Those who have attended former International Medical Meetings predict a most dismal failure for the approaching one. Many of our most prominent men will neither take part nor attend it, and the general opinion is that Dr. Brodie is the one who has blundered, in which opinion there seems to be great unanimity even among those who will take part in the Convention.

Our February literature has abounded in comments on Pasteur and his hydrophobia treatment. The real interest in this, however, has died out, and, and, as far as this section of the country is concerned, we are left alone with our cautery and mad stones (which in number exceed that of rabid dogs). The profession is extremely skeptical as to the real efficacy of this inoculation treatment, and many are the medical students who would *gladly* be bitten by a dog, if a free berth and expenses to Paris were paid, even though in the said dog's stomach the pump conclusively demonstrates the presence of "bits of carpet, paper, wood," (tops of tin cans, perhaps) or any of those substances which form the delicacies of a goat's pabulum, an animal as yet unrecorded as "mad." Though the interest of the profession has flagged, that of the pound-master has not; for, with the thermometer near zero, he continues to ply his vocation of "Lord High Executioner." In order to escape him a four pound dog must be restrained by at least a four foot chain. Our four Newark children are doing well, but no better than two others, bitten by the same dog, the same day, who did *not* go to Paris. Three more would be-patients have recently gone, but Pasteur is evidently not very anxious to treat his American Cousins, even though the dog's stomach contained the ingredients of his formula, as given above, our papers and journals having failed to unhesitatingly adopt his unendorsed assertions, especially since his last declaration, that the microbe, which he supposed he had found, proved not to be specifically hydrophobic. However, the subject has been, and still continues to be investigated, and we all hope before long to have authentic reports, from the St. Louis and other Laboratories, on this side of the Atlantic, which will give us the specific for this mysterious disease.

The ophthalmologists of our city have been investigating the public institutions for children, and they furnish the startling report of contagious ophthalmia in one of every four inmates, which they attribute to the common use of towels and pillow-cases, and to bad hygiene and the indiscriminate admission and association of ophthalmia cases in the institutions. Catarrhal affections of the upper air passages, nose and ear, are also prevalent among these children, and are reported as having the same etiology. A bill has been introduced in the Legislature to compel officers of these institutions to take precautionary measures for the prevention of the spread of this contagium.

Surgeons are convalescing from the cocaine fever, and are returning to the sure method of producing anesthesia by ether, with apologies for deserting it. Cocaine is certainly of service in many cases, but just *when* it should work well, it too often disappoints, causing the patient needless suffering. A case is reported by Dr. T. R. Varick, of Jersey City, in which he performed an amputation of the thigh, under cocaine, by "confined injections" along the line of operation. A one per cent solution was used for the integument, and one-half of one per cent for the deep injections. In commenting on the case the doctor says the sawing of the bone alone gave pain, none being experienced while the soft tissues were being divided, unless the incision extended outside the line of injection. He does not give the result of his operation.

62 West 55th St. William Moore, M. D.

Early Puberty.—Mr. Bruce Clark presented to the London Pathological Society a boy apparently ten or twelve years old, but in reality only three and a half years old. He was three feet eight and one-half inches high, and weighed sixty-two pounds. There was some down on his cheeks, and though there was no hair on the chest or in the axillæ, he was as hairy as a man about the pubis and in the perineum. His penis was as large as that of an adult, and was erect every morning, though the testes were rather smaller than an adult's. He had never given evidence of sexual desire and no seminal emissions have been observed. The pomum Adami was well developed and his voice was cracked like that of a lad at puberty. His mental state corresponded with his age. The measurement of the head round the occipital and parietal protuberances was twenty-one inches.

He was suckled for nine months. At about one year of age he began to grow rapidly and to eat voraciously. Hair began to grow on the pubes, and before he was eighteen months old he was as hairy as a man. About that time the rapid growth ceased, and since then his mother thinks he has only grown with ordinary rapidity. Mr. Clarke says that this is the only case of which he has been able to find any record in which puberty occurred before eighteen months of age.—*Brit. Med. Journ.*

[This is certainly a remarkable case of precocious development, but that puberty "the time of life at which a person is capable of procreation" has been reached seems hardly demonstrated."

COMMUNICATIONS.

PRAIRIE ITCH, ETC.

St. Louis, March 9, 1886.

Editor Courier —For some time my esteemed colleague Prof. James Nevins Hyde, of 240 Wabash Av., Chicago, has been investigating as to the nature of a certain itching disease of the skin which has been prevailing quite extensively in the country districts of our Western States. Prof. Hyde has kindly asked me to cooperate with him in this matter, and physicians having any definite information in regard to the subject, are respectfully invited to communicate with Prof. Hyde or myself. Speaking for myself alone, as I have had a tolerably large experience with this so-called "prairie itch," "contagious eruption," "Texas mange"—for it passes under these and various other loose terms, I am strongly inclined to believe that these various anomalous affections may be classified under the heads of eczema, pruritus and scabies. I believe that Professor Hyde substantially agrees with this view, and especially looks upon pruritus hiemalis as the prominent affection; but he is candid enough to admit that there may be an undiscovered parasite at the bottom of this wide spread trouble. He thinks, and so do I, that excluding scabies the presumed contagious nature of this malady is only apparent. At any rate, so far no parasite has been discovered in the cases which have come under our observation. Very respectfully,

W. A. Hardaway, M. D.

2303 Olive street, St. Louis.

A New Source of Quinine. The *Indian Medical Gazette* says that Cuprea bark has been found to contain quinine; and has this advantage, viz., that the plants grow near the coast, and consequently the bark can be exported at much less cost than the cinchona bark which is brought long distances from the hills at heavy expense.

NOTES AND ITEMS.

Oleomargarine vs. Butter.—The butter dealers association is taking measures to bring to justice those who are imposing upon the public and injuring honest dealers by substituting oleomargarine for genuine dairy products. While it is not held that oleomargarine made from the fat of animals that are not diseased and which has not undergone decomposition, is in itself injurious to health, it is a palpable imposition to sell it as pure butter.

The following quoted by the *Analyst* March 15, is of interest in this connection:

To the Editor of the Evening Star:

In your issue of the 18th, there appeared a dispatch frem Columbus, Ohio, under the caption: "A Point for Oleomargarine Men," in which I find the following statement:

"Prof. Weber has discovered that the mixing of a little water and salt with the oleomargarine, a process it always undergoes, causes the bogus butter to develop under the microscope exactly such crystals as are found in the legitimate article, and the same result can be obtained with pure tallow treated in like manner. The discovery destroys in a great measure the usefulness of Dr. Taylor's discovery and strengthens the position of the oleomargarine manufacturers."

It seems scarcely possible that Prof. Weber's position is correctly represented in the foregoing statement. If it were true that "the mixing of a little water and salt with the oleomargarine causes the bogus butter to develop under the microscope exactly such crystals as are found in the legitimate article," no oleomargarine would be found in the marke without these crystals, since, as it is stated in the above extract, "the mixing of salt and water with oleomargarine is a process it always undergoes."

Now the fact is that when the bogus butters of commerce are examined under the microscope without having first been boiled, the crystals, which I have described as peculiar to butter, are not to be seen, even in the case where butter is present in the mixture.

The crystallization of butter, as I have again and again stated, does not take place until after boiling.

Since nearly all the butter substitutes contain more or less butter, it follows that when boiled and crystallization takes place, there are crystals of butter present, although not easily discerned. On trituration with alcohol or other suitable fluid a portion of the butter crystals are separated from the fats with which they are mechanically mixed and float into the field of view. The fraudulent character of the article, however, will be distinctly shown by the presence of large quantities of the crystals characteristic of the lard, beef-suet, or other fat used as an adulterant.

As to the statement that "the same result can be obtained with pure tallow treated in like manner," I can only say that the mixing of a small quantity of salt and water with pure beef tallow has no effect on its crystals, as my every-day experience demonstrates; its only effect as is known to chemical science, is to preserve the caseine in butter and the tissues in fat from putrefaction.

In spite of the fact that salt and water are always used in the manufacture of bogus butter, I have found, in an experience of about ten years, that these counterfeits invariably show the crystals which I have described and published as characteristic of the fats used in their manufacture, these being usually beef and lard, especially the latter. I have therefore no fear that the usefulness of my discoveries as a practical means of distinguishing oleomargarine or other counterfeits from butter will ever be destroyed, or that the position of the oleomargarine manufacturers will ever be strengthened by a "little salt and water."

Very respectfully,

Thomas Taylor, D. M.,

Microscopist, U. S. Department of Agriculture, Washington, D. C.

The Medical Society of the State of Tennessee will hold its Fifty-third Annual Meeting in Memphis, commencing Tuesday, April 6th, 1886. Dr. D. D. Saunders, Memphis, is Chairman Com. Arrange. and all communications in regard to the meeting should be addressed to him. Members who cannot attend the meeting can retain their membership, and receive a copy of the Transactions by forwarding $1.00 to the Treasurer.

It is expected that this will prove one of the most interesting and profitable meeting in its history.

ST. LOUIS
COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

OBSERVATIONS ON FEIGNED AND ARTIFICIAL ERUPTIONS OF THE SKIN.

BY W. A. HARDAWAY A. M., M. D., *Professor of Diseases of the Skin in the St. Louis Post-Graduate School of Medicine and in the Missouri Medical College.*

[*Read before the St. Louis Medico-Chirurgical Society, March* 23, 1886].

DR. Robert Farquharson has well observed (Quain's Dict. of Med.) "that no insignificant part of the real difficulty in the practice of our profession depends upon what we may call feigned diseases." This is especially true in the department of dermatology, and holds good not only for those where the deception is intentional, but equally for those instances in which it is accidental. In this place, however, I wish to put on record briefly the clinical histories of three rather interesting cases that have come under my personal observation.

CASE I.—T. M., æt. about 23 years. I saw this patient about twelve years ago, and, as it was the first case of the sort that I had met, it made a lasting impression on my memory. This young woman was undoubtedly hysterical, and a few months previous to my seeing her had been the subject of a presumed miraculous cure of, I think, some form of abdominal disease. At any rate, some three months after her "cure," probably finding that she was ceasing to be the object of quite the same

amount of lively interest as formerly, she determined to revive her waning distinction a little. It was at this time I was called to see her. I found on the left arm between the elbow and wrist an eruption of variously sized and irregularly shaped blebs. She complained very severely of the pain they caused her, the arm was indeed greatly swollen and inflamed. I prescribed for her some soothing application and made the diagnosis of a pemphigus, although somewhat surprised at some of the features which the case presented. At my next visit, several days later, I found matters in a still worse condition There were now bullæ present, and the bases of the older ones, which had been ruptured, were angry and showed evidence of great irritation. Having learned in the meantime the previous history of my patient, and taking into consideration the location and shape of the eruption and the utter failure of any remedial measures to secure even the slightest relief, I began to suspect deception. Examining the eruption very closely I discovered marked evidence of traumatism about the sores left by the blisters. I noticed that there were numerous needle or pin scratches, and that these scratches had frequently been carelessly made, and had, in many instances, invaded the healthy intervening skin. In short the whole picture was so unlike that of a pemphigus or any other recognized form of cutaneous trouble that I had no difficulty in convincing myself that the eruption had been caused by the patient herself for the purpose of gaining sympathy and further attention. The agent employed was undoubtedly nitric acid. When I disclosed the facts in the case to the friends of the patient I was promptly dismissed for my pains.

CASE II.—This patient was referred to me by Dr. E. M. Nelson. It is the same woman of whom Dr. Nelson had reported some remarkable occurrences to this Society. Whether she was an honest hysteric or malingerer for gain's sake I am unable to say. On this occasion she claimed to have acquired syphilis on the little and ring fingers of her left hand by washing the clothes of an infected child. Of course, this patient not being acquainted with the natural history of syphilis, her knowledge of the course and symptoms of the disease was very confused. She merely

claimed to have syphilis in the region mentioned. Upon inspection, I discovered on the little finger a long linear blister occupying nearly the length of the member. On the ring finger there had been a large blister, but this had broken down, and left behind it an ugly ulcerated sore. The arm was hot, tumid and acutely sensitive. The glands of the axilla were enlarged and painful; in fact the patient was suffering from an acute lymphangitis. Here, again, the manner of the patient, her incoherent story, the situation and appearance of the lesions, made me suspect at once that her trouble was self-inflicted. I did not know at this time that she was the woman of whom I had heard Dr. Nelson speak. I did not tell her at this visit of my suspicions, but I utterly ridiculed the idea of her skin trouble being "syphilis" as see called it; but as I did not fall into the trap which she thought she had so wisely set, I did not have the pleasure of seeing her again. I believe that Dr. Nelson from subsequent observation, concurred in my view of the case.

CASE III.—This was a young girl of sixteen or seventeen, a patient in Dr. Michel's ophthalmic clinic. She had called Dr. Michel's attention to a peculiar and very painful affection of the skin of which she was the unhappy possessor, and he very kindly referred her to me. I noticed when she entered my consulting room evidences of considerable perturbation, which taken alone, however, are in no way significant; but when she exhibited her skin lesions to me I made up my mind at once that she had produced them on herself. On the neck, under the chin, were two irregular brown discolorations, about the size of silver half-dollars. They were separated from each other some half an inch or more. The margins of the discolorations were much darker than their centres—a feature of considerable diagnostic importance. The color was rather suggestive of nitrate of silver. Upon taking up the patches between the fingers, I detected no evidence of infiltration in the skin. The young girl would moan with agony, and the tears would run from her eyes whenever the parts were handled: these symptoms were evoked even by the slightest pressure, and I observed, which from the situation she could not, that the skin seemed equally sensitive when I pressed upon the uninvaded regions. She had also related that

she had an eruption on her arm, not mentioning which arm. I predicted privately to Dr. Michel, who was present at the examination, that it would be found on the left arm. So when she had disrobed we did find a couple of lesions in an accessible position on the left arm. Here, however, the lesions differed entirely in physical characters from those on the neck. We noted in this situation a couple of scratches a few lines wide and about an inch long. They showed signs of previous inflammation, and one had been made sufficiently deep to leave a superficial cicatrix behind it.

Being fully satisfied of the nature of the case I determined upon a little experiment. Taking a small gold coin from my pocket I remarked to Dr. Michel, in the presence of the patient, upon the remarkable results obtained in Paris by the local application of gold and other metals. I explained to the young girl what I wished to do, and assured her of immediate relief to her sufferings. I pressed the coin upon first one and then another of the brown spots of the neck (she complained of no symptoms in regard to the places on the arms) spots which, a moment before, whenever touched, caused apparent agony. She not only did not shrink from the application, but in a few moments expressed herself as being entirely free from pain. Thereafter the spots and the region about could be pinched or freely pressed upon without causing any annoyanceat all. Metallotherapy was successful. In reviewing this last case my attention was struck by the following points: First, the fact that the eruption corresponded to nothing that I knew off in dermatology; second, the unusual symptoms of hyperesthesia; third, the absence of infiltration of the skin; fourth, the darker color of the margins of the eruption on the neck, showing that some liquid substance had been employed which, as is often the case, had accumulated most at the periphery; fifth, the presence of two distinct eruptions in the same person, claimed to have been produced by the same cause, and finally the influence of the treatment adopted upon the patient's imaginary sufferings. Suspecting that the stains in the neck had been made with the nitrate of silver, I made a partial attempt to remove them with a a solution of the cyanide of potassium, but unsuccessfully; the

discoloration had perhaps existed too long, or I did not persevere sufficiently in the attempt; however, Dr. Michel, who kept the patient under his observation, told me that she experienced no further trouble, and that the stains disappeared not long afterward.

It may not be out of place here to call attention to the frequency of certain artificial eruptions, acquired innocently enough by the patient, but which, may be very puzzling to the physician. I recall a case of a gentleman who had a vivid red stain upon his chin which a physician had thought to be a nevus, and proposed inserting a hot needle into it. Before consenting to this operation, however, he sought my advice. I certainly found an anomalous red streak some half inch long on his chin, which did not disappear upon pressure. I confess that I was much puzzled by it, but summing up what I knew of skin diseases, and recognizing its bizarre character, I proceeded cautiously. A few days later the patient informed me that he had discovered the cause of his trouble. It was an aniline stain from a new blanket. Dr. Geo. Henry Fox, of New York, related to me a similar but much more extensive dyeing of the skin which had puzzled a number of physicians.

Another case which illustrates these forms of so-called artificial eruption was in the person of a young gentlemen, who presented on his hands, especially the palms, widely diffused punctiform brown lesions. To my mind they appeared clearly as the result of an accidental splashing of a nitrate of silver solution, and I had the satisfaction of settling the diagnosis and relieving his fears by erasing the supposed eruption with a solution of the iodide of potassium.

I remember an instance during the small-pox epidemic in 1872, where a woman was supposed to have variola from having gotten some croton oil on her face and other portions of the body. Similar cases could be multiplied.

While hardly pertinent in this connection, it is well to bear in mind the well-known fact that a large number of medicinal substances when ingested produce the most varied manifestations on the skin.

In conclusion, I would beg leave to indicate a few of the

points which should be borne in mind in making the differential diagnosis between the so-called feigned and artificial eruptions and the substantive diseases of the skin. In the first place, we should ascertain the antecedents of the patient, and take particular note of the present condition. Secondly, we should discover if the patient had ever suffered from any skin disease before, and whether the patient had been or was at the time making use either locally or internally of any medicinal preparation. We should compare the lesions present with other known eruptions of the skin, make particular note of any anomaly. We should investigate closely the local expressions of the disease, for instance, as regards infiltration, itching, burning, etc. It must be borne in mind that most eruptions produced with intent to deceive, generally occupy situations most accessible to the patient, and in the majority of cases, in right handed persons, are apt to be on the left side of the body. It would be tedious to enter into the minute details of the differences between these feigned eruptions and those due to disease, as, for instance, how a pemphigus bleb will have a certain definite outline, and a bleb produced by nitric acid is apt to be jagged and irregular or linear, but I think enough has been given to show in a general way the cautions to be observed in coming to any conclusion in regard to a suspicious eruption. The late Dr. Tilbury Fox has pointed out that so far as the simulated skin affections are concerned they generally are of the following forms: The eruption is in erythematous or excoriated patches, such as may be produced by rubbing or by mustard; or bullous, or pustular, or more or less deeply ulcerative, and such as could be caused by the application of cantharides, croton oil, or some corrosive acid; or such an eruption as could be brought about by the constant forceful use of the finger nails; or it is a pigmentation—e. g., simulating chromidrosis, produced by black lead, candle black, grease, and other compounds.

W. A. H.

CIRCULAR WARDS with domed roofs have been found to offer decided advantages for thorough ventilation over any other form of structure.

DISLOCATION OF THE SEMILUNAR FIBRO-CARTILAGES OF THE KNEE-JOINT.

BY FRANK R. FRY, A. M., M. D.

[*Read before the St. Louis Medico-Chirurgical Society, Feb.* 23, 1886.]

WITHIN the past two years I have seen two cases of "internal derangement of the knee-joint" that I believe to have been dislocation of one of the semilunar cartilages of the knee. The symptoms briefly stated were as follows. The patients in the act of flexing the leg were suddenly thrown to the floor, one in starting to ascend the stairs, the other when stepping onto a stool to reach the top of a wardrobe. In each instance there was intense pain in the knee and running down the leg, accompanied with a condition of utter helplessness. In one case these symptoms disappeared as suddenly as they came, while the patient was being assisted to a place to lie down; in the other the symptoms seem to have gradually disappeared, meanwhile a physician being called, who manipulated the joint only slightly, so far as I could learn, without causing the patient much pain. In each instance there was some remaining tenderness, and occasional very slight pain in moving the joint. But these symptoms disappeared rapidly, causing no inconvenience to speak of, and seeming not to require treatment. I observed when I examined the cases that the only points of tenderness were along the margins of the tuberosities of the tibia. Each patient had had an occurrence of the accident before, one about a year, and the other between three and four years previously. The peculiar character and recurrence of the accident, more than any inconvenience they suffered at the time, was the occasion of both patients consulting me. In each instance the first attack had been substantially as the second. During the interim between the attacks they had been conscious of no trouble of any kind with the joints. They were both healthy, strong, active subjects, one a servant girl, about twenty years of age, the other one an accountant about thirty, neither having any peculiarity about the affected or or other joints of the body that I could discover.

These cases seemed to me, to present rather a remarkable coincidence, and this more than anything else led me to consult authorities. In the limited amount of literature on the subject available to me, I found on the part of some writers a decided skepticism about the occurrence of the accident at all, and only brief references generally. But very recently I found a paper in the *Dublin Medical and Surgical Journal*, June, 1882, on "Hey's Internal Derangement of the Knee-Joint" by Mr. T. F. Knott, Dem. Anat. Royal College of Surgeons, Ireland, that is a very exhaustive and valuable contribution to the subject. Before I had an opportunity of consulting this paper, I had investigated the anatomical authorities, and during the winter I have examined several knee-joints carefully on the cadaver, my object being to find an anatomical explanation of the accident. In this, of course, I have been anticipated by the writer just referred to and many others, and he has collected and presented the information on the subject in the best possible shape. The best descriptions and explanations of the mechanism of this joint I have yet seen are in Quain's anatomy and F. O. Ward's Outlines of Human Osteology, which, by the way, is a valuable little work, now out of print, so far as I know, but which has been largely borrowed from by nearly all succeeding writers of systematic works on anatomy, and often without proper credit. In passing I think it worth while to call attention to two points that the various writers do not bring out. The coronary ligament described as fastening the outer margin of the semilunar cartilage to the margin of the tuberosity of the tibia is a very slight affair, being only a few fibres reinforcing the capsular ligament in this locality, not being strong enough to afford any considerable resistance to movements of displacement of the cartilage in any direction. Secondly, the ligamentous slip attached by one end to the posterior edge of the external semilunar cartilage and by the other to the upper inner portion of the inter-condyloid notch, varies in length, and the points of its attachment in different subjects, being sometimes a separate and distinct ligament, and sometimes intimately blended with the posterior crucial ligament; therefore it controls the movements of the external semilunar cartilage more in some instances than in others.

The motions of this joint are flexion and extension in a single plane, and a slight amount of rotation when the leg is flexed. Extension beyond a right line is prevented by the anterior crucial and lateral ligaments. Rotation is impossible when the leg is extended because in that position the anterior crucial and lateral ligaments are tense holding the condyles of the femur closely in their articular fossæ formed by the articular surfaces of the tuberosities of the tibia and the semilunar cartilages. When the leg is flexed and the ligaments relaxed, it may be slightly rotated inward and outward, more in the latter direction. Rotation is limited by the lateral ligaments. A sliding forward and backward of both condyles at the same time is prevented by the crucial ligaments. But in the motion of rotation, one condyle may slide forward as the other slides backward and *vice versa*. No adduction or abduction or lateral rocking motion of the leg on the femur is possible either in extension or flexion. This is prevented by the manner of attachment of the crucial ligaments. In flexion the tuberosities of the tibia come in contact with the posterior surfaces of the condyles of the femur which are more rounded than the inferior portion resting on the tibia in extension, or in other words the posterior portion of the condlye, both vertically and laterally, is more convex than the inferior portion. To accomodate these changes in the shape of the surfaces presented to the tuberosities of the tibia, the semilunar cartilages change not only their position but also their shape, so as to form, as Holden says, "variable sockets." This would tend to show that the cartilages are about as closely applied to the condyles of the femur in flexion as in extension. This I believe to be the case.

From these facts it is apparent that there can be no dislocation or even considerable change in the position of the cartilages when the leg is extended; neither can there be when the leg is flexed, without rotation. In making these statements we are, of course, considering the joint in its normal anatomical condition. The question then is whether, with the leg flexed and suddenly rotated, it is possible that the *thicker portions* of one of the semilunar cartilages might become engaged between the bones, producing the symptoms for which we are seeking an

explanation. Symptoms, such as I have described briefly above, but better described and illustrated with cases by others, could only be produced, so far as I know, either, first, by a loose or floating body, or, secondly, by the thicker portion of the semilunar cartilage getting between the bones. I think there is plenty of evidence in the literature of the subject that both these conditions do occur; but it is not always easy to tell the difference between them. Speaking of the engagement of the semilunar cartilages between the bones, Sir Benj. Brodie says: "The symptoms very much resemble those produced by a loose cartilage within the joint." Hay and Bonnet, both of whom were much interested in this subject, made similar statements. In my cases the facts that after a careful examination I could find no loose bodies, that the patients were so long a time without recurrence of the accident, that between times they were never conscious of any trouble whatsoever with the joints, and that the joints had not previously suffered in any way known of, led me to my diagnosis.

However, the differential diagnosis between these two conditions is only a secondary consideration, my main object in this paper being to discover, if possible, the causes of the confusion and difference of opinion amongst authorities as to the possibility of a dislocation of the semilunar cartilages, and the circumstances under which it may occur.

This, I think, Mr. Knott explains, but he does not make his explanation as apparent as it might be. He says: "A careful examination of the various observations of 'internal derangements of the knee joint.' that have been placed on record will show that writers on the subject have included under the same denomination two distinct varieties of surgical lesions—one in which the displacement affected the semilunar cartilages only; the other, in which, besides the displacement of the cartilages, there is also a change in the normal relations of the tibia and femur, or, in other words, an incomplete dislocation of the leg." From the context I understand that in referring to cases in which the displacement affected the semilunar cartilages only, he means those cases in which the cartilages are displaced from violence or disease, the other parts remaining in position. Such cases

are, of course, very rare, as he shows in his paper. Bonnet, by a very satisfactory experiment on the cadaver, showed that by flexing the leg at right angles and suddenly abducting the foot the inner condyle slipped behind the inner cartilage, wedging it between the bones. He then restored the parts to their proper relations by extending the leg and letting it rotate into place. This experiment he repeated many times on the same subjects. In speaking of this Mr. Knott says. "Cases have been observed in the living body, corresponding closely to the facts observed by Bonnet in the cadaver, but these cannot properly be regarded as luxation of the semilunar cartilages; they are incomplete rotatory dislocations of the leg itself. The possibility of the existence of a lesion of this kind cannot well be doubted." It would seem apparent then, that with the leg flexed and rotated outwards, any movement or slight force that will suddenly increase the amount of rotation may, in some instances, result in engaging the thicker portion of the cartilages between the condyle of the femur and the tuberosity of the tibia, causing the curious and distressing symptoms to which I refer. The only question remaining to be determined is, what amount of rotation may be considered an incomplete rotary dislocation of the leg. I suppose Mr. Knott would say it would be that amount of rotation which would result in engaging the cartilage as above described.

703 Washington Ave.

A NEW BONE-GOUGE.

BY CHAPMAN V. DEAN, M. D., ST. LOUIS.

I HAVE on several occasions heard expressed on the part of surgeons the need of an instrument of some kind, that would cut down—safely and without injury to the *dura-mater*—the adjacent margin of a depressed fracture of the skull so as to allow the use of the elevator or bone-nippers.

Trephines are now laid aside for bone-gouges and bone-nippers; and the gouges now in common use are, for the most part, more particularly when the bone is impacted or comminuted,

very unsatisfactory, all positively requiring the aid of a mallet, even the slightest jars of which it is better to avoid, if may be.

The instrument here illustrated which I have devised, and tried sufficiently to be convinced of its merits, seems to answer the purpose fully. It will work in any direction; the cutting depth can be guaged to a nicety, and it requires no propelling force other than the operator's hand. I believe any one who tries it will not think me over-sanguine as to its usefulness.

STRUMOUS SYNOVITIS.

BY J. R. LEMEN, M. D., ST. LOUIS.

[*Read before the St. Louis Medico-Chirurgical Society, March* 9, 1886.]

DISEASES of the joints are an interesting study because of the complex structure of the part affected and consequent difficulty of making a correct diagnosis in diseases affecting them. During the last few years it has been my fortune to come in contact with a number of cases of interesting joint disease. Originally the trouble was known as white swelling, but is now known and described by the more appropriate name of strumous synovitis. I say more appropriate, because I believe that this disease is seldom found in patients unless the strumous constitution is more or less well marked. The patients who suffer from strumous synovitis are not always the typical strumous patients, but it may be found in people who are apparently healthy. Still, if the family history is closely studied, I think that the strumous constitution will appear as connected with the patient either directly or indirectly, in such a manner that we may consider it the predisposing cause of the development of

the embryotic tissue in the joint. The stamp may be so slight that it will only cause the development of this joint trouble in cases where there has been a previous injury, or the disposition may be so strong that the disease will develop without any assignable cause. Authors have therefore spoken of several ways in which the disease may develop. It may follow an injury to the joint, such as a sprain neglected, or an attack of acute synovitis. These cases of strumous synovitis following an injury may, I think, be developed in patients who are constitutionally comparatively healthy, and in whom the strumous taint is present to only a slight degree. The patient might, perhaps, have passed through life without any disease of his joints, but when the injury is present in the joint, the strumous taint will cause the embryonic tissue to grow from the injured synovial membrane and the destructive process once begun by nature is most likely to continue unless arrested by art.

In the other class of cases, where no cause for the development of the disease, can be assigned but the beginning of which is insidious, the enlargement taking place without much pain, the patient, not noticing that the joint is enlarged, ascribes the stiffness to a slight attack of rheumatism or a growing pain: this form is usually developed in those patients where the strumous constitution is intense. In these people the process is likely to be rapid, the tendency to recovery slight, and the destruction of the joint structure very great. I have before me now the notes of a case belonging to the last named class which I will relate. John H., age 24, borne in United States. Mother, from what I can learn, died of phthisis. Father living a time I saw the patient. The patient was of the typical strumous type, features very heavy and dull, ears large and cartilages thick, nose rather short but cartilages thick, opening of anterior nares small, hardly allowing breathing space, eyes dull and complexion muddy, hair slate colored and oily, skin oily, little beard, and general appearance stupid. Four years before I saw him his right ankle commenced swelling, and upon consulting a physician he was told that he had rheumatism and was treated accordingly: of course there was no improvement under treatment but trouble increased. He used salves and

liniments from old women and quacks. The contour of the joint at this time was destroyed. The swelling became great about the ankle and finally it opened externally and discharged a thin unhealthy pus; this had continued for months when I saw him: the limb was entirely useless, the drain on the patient was great; but when amputation was suggested the patient and friends objected. The patient lost his appetite, the suppuration continued, and he finally died from exhaustion.

Another case which I have under my care at the present time will illustrate the insidious beginning of some of these cases. Mamie W., æt. two and a half when I first saw her, of German descent, a daughter of working people. Father in fair health, being quite fat, weight 220 pounds, height five feet six inches, large fat face and hands, splay footed, skin being fair and coarse. Mother was a very delicately formed woman; features drawn and body badly nourished, died of phthisis about a year and a half ago. When I first saw the child, she seemed well nourished. The disease trouble of right knee was the only trouble. This knee I found much enlarged, measuring an inch more in circumference thanthe left. The father did not know how long she had been troubled with the swelling, the only thing that caused them to consult a physician was the stiffness they noticed about the movements of the right leg. The swelling was almost painless except on pressure at the internal upper border of the patella when the patient would cry, also some tenderness when the bones of joint were rubbed together.

The swelling was semi-elastic but not fluctuating. She was able to use the leg with very little difficulty except the stiffness: leg was slightly flexed. The patient when put under treatment, which was as absolute rest as possible, did not improve for some time, but under the use of tonics, cod-liver oil, etc., she gradually grew better, and is today almost well (about two years after commencement of treatment) with a very good leg.

I will report one more case as illustrating the disease upon the border line between the first and second stages. Tillie M. æt. 3 years, of Irish extraction. Father and mother badly nourished, mother looks like a drinking woman. Upon examination I found the left ankle joint much swollen, and at certain

points, besides the semi-elastic feel of the granulation tissue contained in the joint, I found fluctuation. The mother told me that the child was restless at night and often cried out during her sleep. This I knew meant danger to the cartilages of the affected joint, and, as Mr. Barwell has explained, is caused by the hyperemia beneath the articular lamella which always accompanies the ulcerations of the cartilages. In this case I prescribed rest, tonics, etc., but owing to the ignorance of the parents, I was not able to follow the case. It was impossible to make them understand why the swelling could not be reduced more rapidly. These cases I have reported because of their seeming fitness to illustrate the different stages and different terminations. To me this class of cases is interesting, it is a subject that has not been well understood until within the last few years.

PUERPERAL ECLAMPSIA.

BY S. C. GRAVES, M. D.

[*Read before the St. Louis Medical Society, March*, 6, 1886].

I PRESENT gentlemen, for your consideration, an epitome on the etiology and treatment of puerperal eclampsia based on my experience in Charity Hospital New York City, a short struggle in private practice, and my knowledge of the theories promulgated by our eminent confreres with all of which and with the doubtful characters of which you are familiar.

The composition of the blood, and the condition of the nervous system, as has been demonstrated, doubtless play important roles in this affection. And, as the character of the blood in those who suffer with puerperal convulsions, with chronic Bright's disease and with alcoholic delirium is, as we understand it, essentially the same, that is, an increase in water with a decrease in albumen, and, in a marked manner of the red blood globules, we infer that the secondary cause of many of the symptoms in the diseases mentioned is similar.

This hydremic condition favors transudation through the

parietes of the blood vessels and exosmosis rather than endosmosis. So the effete matters would not be carried off from the tissues as when the blood is of normal tenuity, and would presumably be retained in sufficient quantity to cause considerable irritation in a delicately constructed organ like the brain, thereby assisting more potent agents in causing edema and congestion.

Frequently there are symptoms showing a disturbance of the circulation, and this may be the first intelligence we have of the approaching storm.

This was beautifully demonstrated in a case recently seen with Dr. Fischel, in which for several days before she was seized with convulsions the lady complained of fulness of the neck, and a rush of blood to the head.

This blood dyscrasia, not urea or carbonate of ammonia, though a small quantity of either would act as a powerful poison in the dyscrasy described, is always present in this complication of labor.

It has been demonstrated that we may have urea in the blood and eclampsic seizures not be produced, even in the great nervous and circulatory disturbance at parturition, and as well that we may have epileptiform convulsions without the previous kidney complication.

The nervous system, notably the vaso-motor, seems prone to disturbance in such conditions of impoverished blood, easily irritated, be the cause centric or excentric, and we infer that this stimulation of the vaso-motor nerves causes contraction of the arteries more marked in the arterioles. This would cause anemia of the brain and decided venous congestion, which anemia, as I understand, causes the paroxysm, following which we have congestion due to over-stimulation, and consequent partial paralysis of the vaso-motor nerves.

The following is an incomplete history of a case recently seen by me with Dr. Fischel:

Mrs. W., aged 25, multipara, had been unfortunate with her children, having lost all, but without any assignable cause bearing on the present subject. She complained of the sensations referred to, fulness of neck, etc., several days before her illness.

At about three o'clock in the afternoon, one week before her

expected third confinement, patient complained of severe pain in head and stomach: soon after began vomiting: Dr. Fischel saw patient at this time, and found her to be suffering with acute indigestion. Dr. Fischel prescribed and requested to be called if patient did not improve. She continued in same condition, becoming somewhat incoherent until twelve o'clock, when she was seized with a convulsion; I reached her while in the second: found head well down on perineum. Chloroform was administered immediately and twenty-five grains chloral given after paroxysm. The third convulsion was not so severe, muscular contractions strong, chloroform being continued by inhalation. The child was still-born during fourth epileptiform seizure. Hemorrhage was slight, uterine contraction clonic, lochial discharge scanty. Dr. Fischel arrived at this time and relieved me of the responsibility. Patient was in a comatose condition between paroxysms, had only one very mild convulsion after birth of child. It was discovered early the same morning that the right side of the patient was paralyzed, and she remained in a semi-comatose condition during the day, and it was several days before she regained her faculties. These symptoms gradually passed off, and patient made a perfect recovery. Urine contained next day about forty per cent albumen; three days after it had all disappeared.

Treatment.—I agree with those who believe chloroform and chloral to be the remedies par excellence in this affection, and do not think venesection indicated unless the pulmonary edema be very great, demanding more active measures, and my observation has been, when it was necessary to resort to this procedure, that I soon had to sign the death certificate.

We have reason to believe that oxygen will prove an efficient remedy. I do not think morphine contraindicated. Amyl nitrite theoretically would seem a powerful remedy for relieving the paroxysm; but I do not think it would be called for unless the paroxysm were unusually long and severe.

ITALIAN FEMALE PHYSICIANS.—The Italian Government has just officially recognized female practitioners for the first time.

ELECTRICITY IN GYNECOLOGY.—THE FARADIC CURRENT.

BY GEO. F. HULBERT, M. D., Sup't Female Hospital, St. Louis.

[*Read before the St. Louis Medical Society*, Feb. 20, 1886.]

THE history of the use of electricity as a therapeutical means would consume too much time, and would probably result in the opinion that it has been erratic and inefficient, subject to spasmodic attempts for acknowledment of worth, applied by the profession in general and special, used without any well defined understanding of its power or characteristics, and finally relegated to the great number of unsatisfactory remedies. Yet, for all this, there have been a few, earnest, persistent and quiet workers who have held on to it, believing that it was worth something, and that the secret of success in using it very largely depended on understanding it.

Among those abroad who stand out as its earnest advocates in gynecology are Tripier and Apostoli, master and pupil.

In this country probably Beard and Rockwell have presented the profession with the best work in a general way, and their modest, yet earnest, plea for the value of electricity as a therapeutical means is to be commended. These two gentlemen recognized the distrust and discredit the profession had for electricity, and have presented a bulwark of logical reasoning and clinical fact that will require something more than ridicule to tear down.

It was by this that my attention was first called to the subject, and from which largely came the information I have since verified in the use of electricity in gynecology.

We have been at work for about a year, and have found that electricity is not a harmless remedy, but a powerful one; that it is of vital importance what form of current, faradic or galvanic, is used, and the conditions in which each is indicated.

At first, the use of electricity was confined to its general application, in the form of general faradization and galvanization, and we found its adaptability in all those constitutional condi-

tions characterized by anemia, chlorosis and neurasthenia, etc., which are so often concomitant, or, as I believe, foundation conditions of many serious diseases of women. Given any of the above conditions, and a woman, on even trivial exciting causes, is apt to be cursed by diseases characterized by chronicity and pain.

We have limited the use of the faradic current to conditions in which there was an absence of inflammatory action, either chronic or acute, as in uterine displacements, a few conditions that result in amenorrhea, simple, passive congestions, subinvolution, and some cases of prolapsus of uterus and vagina.

It seems to us, from the nature of the faradic current, that inflammation of any kind should be an absolute contra-indication to its use. It is electricity at a high potential, and gives a shock of relative intensity. It excites muscular sensibility by a process of goading, so to speak. It gives stimulation with relatively less sedation than the galvanic current. It has not been proved that the faradic current produces the phenomena of electrotonus, as the galvanic does, and while there is the clinical fact, seen every day in electro-therapeutics, that the positive pole is the calming one, the negative the irritating one, still, this difference between the two currents is marked. In the influence produced on nutrition, the faradic acts more directly through the muscular, the galvanic through the nervous system. In their chemical effects the two currents differ widely, the faradic less effective, the galvanic profoundly so. And while the electricity is the same, for electricity is electricity wherever it may be, there is a great difference in degree.

Beard and Rockwell, after a careful comparative analysis of the two currents, say that the difference in degree between the effects of the two currents is so marked and so clearly demonstrable, as to be practically equivalent in certain instances to a difference in kind, and to give very important and remarkable advantage of one current over the other.

To the faradic is ascribed the power of easily producing muscular contractions, when passed over the muscles or the nerves that supply them with a difference in degree of effect, from tonic to tetanic, strong mechanical effects are produced.

Is this the kind of a remedy we want in inflammation? We think not; and for these reasons we have confined it to the conditions before mentioned.

The manner of its application is dependent upon the object desired. In deficient development the principal object is stimulating to growth. Here we do not want to subdue or get rid of anything, but to excite increased activity, we want an agent that will have not so much a strong contracting influence but one that will produce a determination and passage of nutritive material or blood, with stasis sufficient that the best advantage may be taken of it. To meet this conditions the current should have a low tension and great quantity with moderate interruption.

This would be accomplished by the primary coil, with the positive pole on the endometrium at the fundus, and the negative at the cervix.

In conditions where we want mechanical effects principally as in subinvolution and passive congestion, the nearer we produce the tetanic state of the uterine fibre the better the better; here we want high potential and rapid interruptions. To accomplish this, the secondary current should be used, and endurance is the amount of the dose. The position of the poles should be the reverse of the former, negative against the fundus, the positive at cervix.

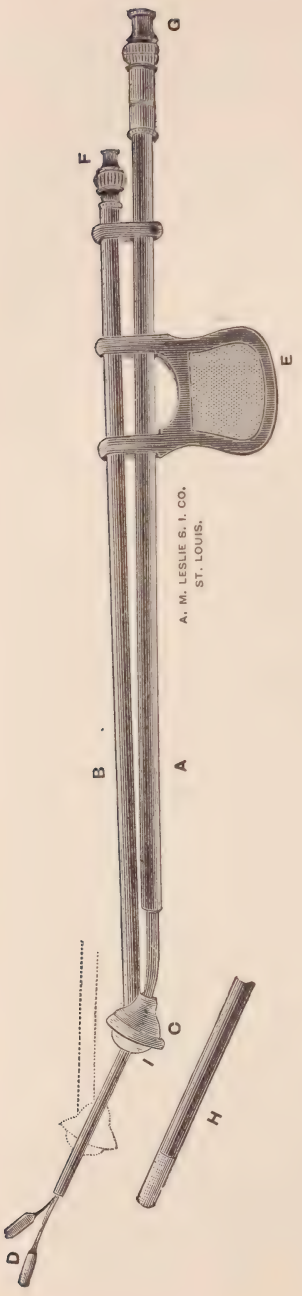
And why this method in these conditions? We think the following established facts will justify the position taken. We know from electro-physics and physiology that the potential or tension of a current is dependent upon the resistance, both external and internal, and the electro-motor force. We know that a short, thick wire will give a greater quantity of current with a low tension than a long fine wire, the electro-motor force remaining the same. We know that the phenomena of extra currents in a short wire coil are not so great as in a small long wire coil, the resistance remaining the same. We know that the negative pole is the irritating one, the positive the calming one. We know the effect of the faradic current on involuntary muscles is that the contractions produced at the positive pole while appearing more are of the tonic, while the negative produces the tetanic. We know that the influence of electricity

upon the circulation is at first one producing stimulation of the vaso-motor system, thereby producing a temporary anemia; this is followed by relaxation of the vessels, particularly the arterioles and veins, produciug a hyperemia.

From anatomy and physiology we know that the uterus is composed of involuntary muscular fibres, that its venous supply is vastly abundant, that the conditions about the uterine region are peculiarly and designedly adapted for growth, of a type for creation. We know the typical contractions of involuntary muscular fibres are a phenomena of wave-like movements, and as a consequence, the uterus as a whole in a state of physiological activity is one of slow contraction and relaxation. It would seem from our knowledge of the laws of growth that the purpose here, was, that by these gentle contractions and relaxations the nutritive material was brought into its meshes, there to pause for a time and give up its pabulum and the remnant then be sent on and out, making room for the next supply.

For these facts and these reasons do we believe that the faradic current of low tension, large quantity and of moderate interruptions, with the positive pole at the fundus and the negative at the cervix, will best serve our purpose in those conditions that need growth or development. The strength or size of the dose should be one that can be borne without suffering; with this method we avoid as much as possible the strong contracting ing influence. Where this is needed the reverse of the above method should be used.

In the methods used in applying electricity I am in the habit of using both the unipolar and bipolar. By the unipolar I mean one pole applied directly to the uterus, and the other to some part of the cutaneous surface. This has proved the best method where I wished a more general effect: particularly is this so where debilitating constitutional complications exist. The bipolar method is that in which both poles are applied to the uterine body. This is certainly the only effective way to get the proper result from the faradic current, when we wish the tetanic state of the uterine muscle; in fact, I believe it impossible to get a tetanic condition from the unipolar method. I have used repeatedly the faradic secondary coil of the McIntosh physician's battery, which will bring the most of men to their knees, at full strength the shield entirely drawn out, and the patients make no complaint of suffering. To do this the uterine electrode must be one by which the vagina will be protected from direct contact with the



external pole surface. To get the tetanic effect it is necessary to influence as much as possible of the uterine muscle. The more complete the distribution of the current the better. Such an instrument I could not get, and had one made as illustrated. It has proved exceedingly satisfactory; by its use I have demonstrated the tetanic condition that the faradic current can produce, if properly handled. The instrument consists of two parallel cannulas of hard rubber, each containing a rod to convey the electric current. The distal end "D," of the rod in the lower cannula "A," is made bifurcated and arranged to be pushed out, if desired. After the instrument is placed in the proper position in the uterus, when the bifurcated end is pushed out, by their elasticity, the ends of the rod fall toward the horns of the uterus, and distribute the current to both sides of the uterus. The upper cannula "B" has a convex disk of metal on a larger base of hard rubber at its corresponding extremity "I." This disk is connected with the rod in the center of the cannula. It is also arranged to accommodate itself to uteri of varyiug depths (see dotted line). The disk can be placed at any necessary distance from the bifurcated extremity "D." This arrangement admits of an electric current being passed through, say the lower cannula, out at its bifurcated extremity through the fundus and body of the uterus, traversing its substance and passing out at the cervix through the medium of the disk "I." The current can be reversed if needed. "E" represents the handle which is fastened to the cannula "B," allowing the canula "A" to slide through it.

We do not wish to be understood to imply that the results are always seen that we wish to accomplish, but we do believe that with the above method in the application we get the full value of the faradic current as far as we know it; and that it is used in accordance with the scientific knowledge we have of its properties.

To stop here and require of this remedy all the work, or to give the uterus and appendages only the direct benefit, is no more reasonable than to require a person to live by bread alone. The general condition of our patient needs attention, and the general application of the faradic current we consider as necessary, as it is to give remedies for general or constitutional effects. We are too much in the environs of the domain of electricity as yet, fairly to say if it shall work alone. Individual and individual uterine sensibility and susceptibility are points to be considered in the application of the faradic as well as galvanic current. There is nothing unusual in this: they account for a good many of the results. It is well to bear in mind that we are giving electricity to the same kind of an animal as we give medicine to. As to the length of the application we usually take from five to fifteen minutes at each seance; and, bearing in mind the character of tissue affected in the local use, it would seem from the laws of involuntary muscular contraction, that the current should pass until the excitation is complete: for this reason we use the long instead of short seances when possible.

The following case will probably illustrate to some extent the application of the faradic current, and also give some of the almost incredible effects of electricity. And we wish to state here that the cases presented this evening are selected ones which seem to demonstrate the effects of electricity used in accordance with our understanding of its properties.

CASE I. Amenorrhea. Annie F.,aged 29, American, widow, has always had more or less difficulty in menstruation, which first appeared at the age of fourteen. Flow less than normal; has had two miscarriages, one at two and one at three months. A year ago contracted while menstruating a severe cold which aggravated her pelvic suffering and checked the flow, which has not since returned. At the menstrual epoch she would have all the molimen, with very

severe shooting pains in ovarian regions and thighs, with a thin, scant, yellowish discharge. On account of these sufferings she contracted the morphine habit. At the time of her admission to the hospital, she was morally and physically a wreck, in hourly dread of her paroxysms of pain, and in constant fear of losing her morphine. Anemia to a degree, and flabby of tissue. Any attempt made at vaginal examination was accompanied by suffering; everything was tender, and not until an anesthetic was used could anything be done.

Under an anesthetic examination revealed the uterus of normal depth, ovaries of normal size, and only a slight thickening of the left lateral ligament. A rectal fissure was also discovered. Rapid dilatation was resorted to both for rectum and uterus. As far as the uterus was concerned, I am free to say that I could not have given a satisfactory reason for doing so. I felt satisfied that this was a case in which her sufferings were due to constitutional condition, and that the signals were neuralgia and spasm, and that structure was only slightly at fault. My only reason was that it might do some good. The result of this was relief and cure of the rectal trouble, with but slight, if any, amelioration of uterine symptoms. Tonics, antispasmodics, hot douches, opium, *pro re nata*, etc., were tried, and only relief of the parametritis gained.

Believing this to be a case of simple constitutional debility, with want of proper nervous co-ordination, and without inflammatory action, I selected the faradic primary current for both general and local application, alternating in their use. In the local applications were demonstrated some of the almost incredible effects of electricity. Having placed my patient upon the table in a state of dread and suffering, I introduced the speculum with many complaints from her, and, taking the positive electrode, placed its tip in the cervix, where it was stopped by the spasm of the internal os. I placed the hand sponge electrode connected with the negative pole over the sacro-lumbar region, started the current, and very cautiously and gradually increased it, so that it could be perceived by the patient. I do not think that it was more than five minutes before I felt my electrode yielding, and it soon passed into the uterus *without pain*, and was pushed back and forth without her knowledge. Fifteen minutes application was made, and she got up and said that she was "free of pain." From this on her improvement was steady, with paroxysms of pain of increasing intervals

which were not severe; she was up and about, not using opiates; appetite improving, etc.

On Nov. 8, 1885, she left the hospital against my advice saying she felt she would get along at home. Sometime since I received a letter from her in which she reports as follows: On the 10th of the present month (December) my menses appeared and quite freely with very little pain. About two weeks ago I suffered a few days with the old pains but not near so severe as at previous times.

The following case will illustrate the conditions which require the medicinal effects of the faradic current.

CASE II.—J. R., æt. 32. Mother of one child, lymphatic temperament, flabby of tissue, entered for treatment for, as she said, falling of the wound. Examination reveals simple subinvolution, uterus bleeds easily, is soft and flabby to the touch, position good. On account of her anemia general faradization was alternated with local application. Her improvement was going on apace, when, after a local application of the faradic current, I was called upon to witness a terriac attack of parametritis. In this case the applications were carried to the extent of endurance and were well borne before the one which seemed to be the exciting cause of the inflammatory trouble. This complication was overcome by the galvanic current in conjunction with the hot douche.

In prolapsus uteri and low conditions of the vaginal walls and pelvic flow, the faradic current is valuable. We have one case in mind in particular in which the improvement was markedly rapid. The patient had valvular disease of the heart, putting a veto upon amathmia and preventing a more positive assurance that she would retain her improvement, by interfering with a restoration of her partially destroyed perineum. We have the records of cases of prolapsus in which we at first used the faradic with marked benefit; and after a while seemed to have accomplished all it could, or seemed to be causing trouble. Under these conditions a change was made to galvani, an of these we present.

CASE III.—E. P. æt., 23, mother of three children, three miscarrriages, last one three years ago. After birth of second child she did not make a good recovery, and she dates her present trouble from that time. The uterus has "been out" as she puts it, for the

last four years. Examination reveals a procidentia of the usual appearance, with the fundus in the introitus vaginæ, menorrhagia, and the pains characteristic of prolapsus: the faradic current was selected. In a very short time the edema and thickening about the cervix greatly disappeared, and revealed an extensive bilateral laceration of the cervix. The subinvolution decidedly diminished, pain ceased, and my patient became able to be up and about with a Smith pessary, and no discomfort, able to go up and down stairs, walks about the hospital, and says she feels as well as she ever did, which I thought somewhat exaggerated. At this stage Emmett's operation was performed for her laceration of cervix with a successful result. Electricity was not used for the time she was confined to her bed, eight or ten days. After she was up and about and the line of union had become fairly strong, the faradic current was again used. After a few applications it became manifest that it had ceased to have the effect desired. Free hemorrhages, three in number, came on from ten to eighteen hours after the preceding seances, and while we could feel the contractions of the uterus and while it was clearly evident that the electricity had its immediate effect, it would relax and become retroflexed to a marked degree. In fact everything seemed to indicate that this form of current had lost its power. Under these conditions we changed to the galvanic current, and at once the effect became manifest; since then she has had no hemorrhage, and her menstrual flow is rapidly approaching the normal. The uterus rides up right with no tendency to flexion, and, as before stated, she retains a Smith retroversion pessary perfectly. Compare this with her condition when the act of coughing in the recumbent position or standing up necessitated the expulsion of the instrument. We think that four months' work with this result is somewhat better than any four months' work done in similar cases without this remedy, that it has ever been our province to do.

This case might at first seem to be at variance with the position taken in the use and properties of the faradic current, but on analysis we do not think so. As a matter of fact, we had here not only conditions denoting loss of tone, shown by the prolapsus of uterus and vagina and the passive congestion and edema, but there was hyperlasia of the uterus or new growth. The result was that after the faradic had accomplished all it could from its stimulating and medicinal effects, the process then changed to one of stimulating the

growth already existing. We were goading the uterine mucle to the limit placed upon it by the hyperplasia, this resulting in an active congestion that ultimately produced a state of fatigue. Furthermore, after the faradic current had accomplished its work, we wanted for the hyperplasia stimulation with chemical effect, and the galvanic current accomplished the object.

In uterine displacements, simple and uncomplicated, I am not as yet prepared to state anything with any degree of satisfaction. They are cases that are comparatively rare, and I have not been able to use faradization in them enough to state what can be done. Theoretically faradization ought to be of some benefit. In cases where the displacement was due to some complicating local lesion, the relief of the complication generally relieves the uterus, and it returns to its position.

Such, gentlemen, have I to offer as the "reason of my faith" in the value of faradization in some diseases of women. That it is not a cure-all I am confident. That it does much and will continue to do more, as we become more perfect in our knowledge of it, I am satisfied; and trust the agent will be given fair play and exact and rigid scientific application.

KNEE-HEMARTHROSIS.

BY A. H. MEISENBACH, M. D.

[*Read before the St. Louis Medical Society*, Feb. 27. 1886.]

HEMORRHAGE into the knee-joint is of two kinds, viz., the complicated form, where it is caused by, and associated with the graver injuries of the joint, such as communicating fractures through condyles of the femur, fractures of the head of the tibia and dislocations of the joint, and secondly, the uncomplicated or typical form, or that which is produced by strains, blows and falls, and where there is no grave injury to the component structures of the joint. It is this form of hemorrhage that forms the subject of this paper.

Surgical text-books do not mention this form of hemorrhage

into the knee-joint as an uncomplicated condition, referring to it only as a complication of fractures and dislocations of this joint.

That this is not such a rare accident is shown by Mr. Fagan, of Belfast, who has, in a period of five years, observed twenty cases in hospital practice. That only Mr. Fagan should have had opportunity to observe such cases does not seem reasonable. The explanation in my estimation is that these cases have occurred time and again to surgeons in hospital and private practice, but the nature of the effusion was overlooked, taking it to be of another character than hemorrhagic. This was due, before the introduction of the aspirator, to the want of proper and safe methods of withdrawing effusions from the joints, and since the introduction of the aspirator, to timidity on the part of the surgeon in introducing the point of the needle of the aspirator into this joint, from the fact that experience had heretofore taught that it was dangerous practice to puncture joints, having been followed too often by serious consequences, especially to careless and uncleanly operators.

Since the introduction of antiseptic methods, there need no longer be any doubt as to the nature of effusions into the joints and other cavities of the body, for I consider that under proper precautions there need be no more fear to aspirate a joint than to introduce the needle of the hypodermic syringe under the integument.

I have in a period of five years aspirated the knee-joint some fifteen times for various affections, and have never seen any bad results follow. The following six cases will illustrate the general features of typical hemorrhage into the knee-joint, one case, No. II, being of the complicated form, and which I report here to show that the plan of treatment is the same, as far as the effusion of blood is concerned. These cases have occurred in private practice within a period of five years.

CASE I. B., middle aged man, three days before I was called had fallen into a cellar hole, injuring his right knee.

When I saw the case the joint was much swollen. The patient was a careless sort of fellow, and had been moving around by assistance of a cane, thinking that the trouble would pass off of itself, and deferred sending for a physician for three days.

There was some pain on movement of the joint, the synovial sac was distended and prominent under quadriceps. Patella floating; temperature somewhat higher than normal. I aspirated the joint and withdrew about two ounces of blood mixed with synovial fluid; placed limb on long posterior splint suitably padded, and applied a pad of cotton on knee, with moderate pressure by means of bandage; ordered cold to be applied.

Three days after first aspiration I found that the joint had partially refilled, so I aspirated it again, withdrawing an ounce or more of fluid of lighter color.

The patient recovered in about three weeks' time.

CASE II.—Mr. A. fell off a step-ladder, sustaining a fracture through the condyles of the right femur. My friend, Dr. Saunders, had charge of the case, and sent for me in consultation a few hours after the occurrence of the accident. The knee was much swollen; not much pain on movement; could make out line of fracture distinctly. The synovial sac was distended, patella floating, sac very prominent under quadriceps extensor. As this was a communicating fracture, there was no doubt that this distension of the synovial sac was due to hemorrhage, and I advised aspiration. Dr. S. was somewhat afraid to attempt it, yet, on my solicitation, yielded. The following morning two to three ounces of blood were withdrawn from the joint. The leg was placed temporarily on a long posterior splint, suitably padded, with ice-bags to the parts. Afterwards the leg was swung in a Hodgen's splint. The patient made a good recovery in about the average time for such fractures.

CASE III. Jan. 1, 1884. A. P., a stout, healthy negro, working in ax-handle works, was struck on the right knee-joint by a piece of wood. This occurred at 11 o'clock A. M. At 1 o'clock P. M. (two hours afterwards) he was brought to my office: he had to be assisted out of the buggy, not being able to put weight on the injured leg. On examination I found the synovial sac distended and especially prominent under quadriceps muscle. Movement of the joint was possible, with some pain, no heat of the parts, nor symptoms of febrile action, floating patella. My diagnosis was: Uncomplicated hemarthrosis. I told the superintendent of the works who accompanied the patient that there was hemorrhage into the joint and that the proper treatment was to remove the blood by aspiration. The patient assenting, I withdrew about two ounces of

fluid blood. I placed leg on a posterior splint, bandaged the knee and sent patient home to the northern part of the city with instructions to go to bed, keep quiet, and not to remove splint. I did not see him again until four days afterwards. I found him sitting up, suffering no pain. He had removed the splint contrary to my instructions. There was some fulness of synovial sac. I told him to keep quiet and ordered no other treatment. Two weeks after injury patient came to my office with crutch and cane: complete cure in five weeks. The cure in this case could have been expedited had patient had necessary care.

Case IV. Feb. 23, '84. M. H., received a kick on the right knee from a horse. My friend, Dr. Kargus, was called to the case. He ordered rest in bed and application of cold by an ice bag. Next day after injury I saw the case with Dr. Kargus. The leg was straight; the patient could flex the leg without pain. The synovial sac was distended and especially prominent under the quadriceps externally, patella floating. Some ecchymosis of parts below the joint over tibia. Temperature of patient normal. Parts cool. This was then, according to the symptoms presented, a clear case of knee hemathrosis. I advised aspiration; the patient consenting, I, with the assistance of Dr. K., drew off two and a half to three ounces of bright red blood from the joint. After the operation the contour of the joint was restored. I immobilized the joint by applying a thick pad of sheet wadding in the hollow of the knee, and applied moderate pressure on the joint by means of a bandage snugly applied. Ordered clothes wrung out of cold water to be applied to the parts for a day or two. Did not see patient again, but the doctor told me that he made a rapid recovery.

Case V. Sept 1. '84.—J. H., middle aged workingman. Three weeks previously, whilst at work, a piece of wood struck him on left knee. Had not had much pain, but knee had immediately swelled. Had for the past three weeks been using liniments but without any benefit, as swelling of knee remained. Patient was about on his legs, but could not use left one very well on account of the swollen knee.

On examining the knee, I found that it could be handled freely without patient experiencing pain. Patella freely movable and synovial sac of knee distended with fluid. I proposed aspiration, and the patient consenting, I sent him home and aspirated the knee, withdrawing about two ounces of bright clear blood, placed patient in bed and applied compress to knee.

Sept. 10. Joint had partly refilled and I again aspirated, withdrawing a small quantity of blood.

From this time patient made a rapid recovery, so that in about two weeks he had good use of his legs.

CASE V.—October 30, 1885, 4 P. M., J. R., mason, æt. 32. While undermining a wall a lot of dirt fell down on shoulders, forcing body forward, and suddenly bending knees. Felt pain in left knee and side; knee swelled rapidly; could stand, and attempted to continue his work, but after two hours' endurance had to quit. About three hours after accident I was called. I found on examination that patient could not bend his knee; knee not very painful to manipulation; contour of knee destroyed; patella floating and bulging under quadriceps extensor.

I gave it as my opinion that there was hemorrhage into the joint and that the blood must be removed; patient consenting, I returned and aspirated joint and drew out two ounces or more of bright red blood, emptying joint completely and restoring contour. Movement of knee pretty free, though some slight pain. Applied a compress of cotton, and enveloping knee, tightly bound it down with a roller bandage.

Oct. 31. Patient comfortable, and had passed a good night.

Nov. 1. Patient sitting in chair and resting knee on chair; rebandaged knee; no indication of refilling of joint.

CASE VI.—This patient also was very careless, for on visiting him on third day after injury, I found that he had gone out walking, contrary to my directions to keep quiet in bed. I expected that he would have to pay for his recklessness by being confined again, but no bad results followed, no refilling of joint, nor impediment to movement.

SOURCE OF HEMORRHAGE.

That slight injuries to the knee-joint, such as strains, blows and falls, should produce rapid effusion of blood into the joint can be readily understood when we remember the vascularity of surrounding tissues of the joint and especially the delicate network of vessels which ramify in the synovial membrane, and its reduplications, known as tufts and fringes. It is to a rupture of vessels in these tufts and fringes that the hemorrhage is due.

An interesting point to note is, How long does blood within the cavity of the joint remain in a fluid condition? This is pretty

hard to determine, but that it remains fluid for an indefinite time, and does not absorb readily, nor coagulate, is shown by cases I. and V. Case I was, after three days, aspirated, and case V three weeks after reception of the injury, and the blood both cases was in an unaltered and fluid condition. My experience is in accordance with that of Mr. Fagan, of Belfast, who, in an able paper, read before the British Medical Association, and published in the *British Medical Journal* Sept. 22, 1883, and who, to my knowledge, was the first one to call attention to hemorrhage into the knee-joint as an independent affection, reports that in his cases he has found the blood to retain its fluidity four to fourteen days, being the time patient was aspirated after injury.

The remaining of hemorrhage in the knee-joint for an indefinite time without removal, and then undergoing a process of very slow and imperfect absorption is, in my estimation, one of the causes of the production of movable bodies in the knee-joint, properly known as joint mice.

Diagnosis. The only affections that this would be liable to be confounded with are synovitis, acute or chronic, and hydrops articuli. If we keep the symptoms of these affections before the mind we are not very liable, however, to mistake one for the other. The chief landmarks for our guidance to a correct diagnosis are: 1. Time of injury and rapid swelling after injury. 2. Very little pain or none on movement of joint. 3. Entire absence of feverishness of parts or general pyrexia.

Within a very short time after receiving a slight injury to knee, the knee swells rapidly and effusion usually completely fills the synovial sac and produces a bulging appearance under quadriceps extensor muscle, both externally and internally, for we know that the synovial sac extends some distance under the extensor tendon and therefore this appearance. On palpation we have the feeling of elasticity under our fingers, and the patella is freely movable, i. e., floating.

The manipulations of the joints do not cause pain, very little at least, and the joint can be flexed (as far as effusion will allow) and extended with the same immunity from pain. There is entire absence of fever. Now in acute synovitis the swelling of

the knee takes place slowly. The knee cannot be extended or flexed without excruciating pain, nor can it be manipulated without producing exceedingly great pain to patient, and there is always associated with the above symptoms, fever. In chronic synovitis we have a history of a previous acute stage, in hydrops articuli, the history of a diathesis.

Treatment. It does not matter whether it be a case of compli cated hemarthrosis or an uncomplicated or typical one, the plan of treatment, as far as hemorrhage is concerned, is the same, and that is to aspirate as soon as possible. In a case of complicated hemarthrosis, the presence of blood in the joint is a drawback often to a full appreciation of the extent and character of the injury, and by aspirating leaves a freer field for manipulation, relieving nature also of a tedious job, the absorption of the effused blood. Not this alone; the presence of the effused blood may be a drawback to perfect results in healing of a fracture, especially in a fracture of the patella.

In the typical form, aspiration is the proper plan of treatment; by aspirating we accomplish in a few moments that which it would take a long time to do by other means or if left to nature, and then possibly with results unsatisfactory. I do not know how long a case would take by methods of compression and bandaging, having never treated one in that way alone, but I do know that in cases of synovitis this method of getting rid of an effusion is tedious, and a serous effusion every one knows undergoes very rapid absorption, comparatively speaking.

My method of aspirating and treating a case of hemarthrosis is as follows:

I carefully immerse the needle I select in pure carbolic acid, or in glycerine one part and carbolic acid one part, taking care to have the acid thoroughly permeate the bore of the needle, and afterwards rinse with pure water or weak carbolized water. The site I select for aspiration is usually the external side of the bulging synovial sac under the quadriceps extensor. Carefully cleansing same with carbolized water, and then pressing on opposite side of swelling so as to push the side to be aspirated as far out as possible, by doing this you can introduce needle deeper and do not strike cartilage

of the joint as easily. Touching cartilages with my needle point I try to avoid as much as possible. I can usually empty joint entirely so that after aspiration patient usually is able to flex leg completely.

After aspirating I either place leg on posterior splint applying compress of cotton anteriorly and bandage, or simply a compress of cotton posteriorly and anteriorly, and bandage. I usually also order moist applications and enjoin complete rest in bed with leg elevated. Although the latter instructions have not been followed at times by some of my patients for as long a time as I had said, I have never seen any bad consequences follow. Sometimes after three to four days the joint may partially refill when the effusion is again withdrawn and the leg rebandaged, which will in most cases suffice. I have never had to aspirate more than twice to completely cure a case of this kind.

Prognosis. This is good. The average time is fourteen days to three weeks for complete recovery.

Instantaneous Photographs of Heart in Motion.—W. G. Thompson presents to the profession (*Med. Record*, March 13) a method of studying vital processes which it may be hoped will add much to our knowledge of these and will bring us to a better understanding of some points in physiology. He has made photographs of the heart *in situ*, while in motion, showing its form and relative size in systole and diastole. Series of photographs during the muscular contraction enable one to study the various modifications of form which occur in normal action and under various stimuli. Similar studies may be made of stomach, intestines, uterus, etc.

Vaccination.—The secretary of the State Board of Health of New York reported at the recent meeting of the Board, with regard to the results of of vaccination throughout the state to ward off the threatened invasion of smallpox from Canada, that the re cent experience is a new demonstration that vaccination is a cer tain preventive of small-pox.

EDITORIAL.

AMERICAN MEDICAL ASSOCIATION.

Inasmuch as the members of the medical profession in St. Louis stand to the delegates to the American Medical Association this year in the relation of hosts to guests, there is little for the medical press of the city to say now at the time of the meeting other than to assure the delegates of their hearty welcome. It would not become us to attempt to urge any particular line of policy for the Association to pursue, nor to dictate methods or measures.

We can only hope that such a policy will be pursued, and such methods and measures adopted as will reflect credit upon the Association, such as will be honorable, dignified, and fully worthy of the representative body of the medical profession of the United States.

We trust that such men will be put in the positions of influence as will direct the counsels of the Association wisely, men who will hold the interests and advantage of the Association and of the whole profession as of paramount importance, far outweighing any question of personal aggrandizement or emolument. Let the officers be men with clear heads, of quick perception, and prompt action, familiar with parliamentary usage, and who will not only discountenance but decisively set their foot upon any attempt to introduce into the business of the Association the methods of shyster politicians if, as some seem to fear, any attempt to do so shall be made.

Business of vital importance is to be transacted. Let all action be carefully considered and duly weighed, and let the all members cultivate a spirit of fraternal amity. May the deliberations at this

meeting be of a character to unite more fully than ever before the members of our profession in the endeavor to advance common interests. Let there be no factious contention, and let all join heartily to carry out such measures as, after due deliberation, the Association shall adopt.

MALE FERN IN TENIA.

Of all the remedies which at one time or another have been lauded as efficient in the treatment of tenia, none seems to have so generally given satisfaction as the male fern.

In the *Therapeutic Gazette*, Feb. 15, 1885, we find an interesting summary of recent knowledge with regard to this drug.

Behrens in the *Deutsche Medizinal Zeitung*, Jan. 7, '86, reports fifty-two successful cases with only one failure. In fifty of these cases only a single dose was taken (gr. lxxv). In two of the others the second dose was successful in securing the discharge of the worm. Our confidence in the absolute success of these cases is impaired by the fact that in only two of them is it stated that the heads of the worms were found. Behrens claims that success in the use of this remedy is only to be obtained by a methodical mode of administration such as he has adopted.

On the day preceding the administration of the drug he allows the patient to eat nothing after dinner except a salted herring in the evening. For the thirst so occasioned he allows beer to be drunk.

The following morning the drug is to be administered upon an empty stomach, according to the following formula:

℞ Ext. filicis, - - - - 5.0, (℥i, grs. xv).
Pulv. acaciæ, - - - 2.5, (grs. xxxviiss.)
Aquæ dest., - - - - 5.0 (℥i, m.xv.)
Syr. simp., - - - - 15.0 (℥ss.)

M. Sig. Take at once.

A quarter of an hour later he gives an ounce of castor oil.

The drug is much more effective against the tenia lata (bothriocephalus) or unarmed tenia than against the tenia solium or armed tenia, and is consequently most highly esteemed in those countries where the former tenia is most commonly found, as in Russia, Switzerland, France.

The same article cites from Stillé several modes of administering the male fern which have been practised and recommended by different physicians.

Wawruch's method, by which he treated two hundred and six cases mostly of tenia solium was as follows:

For four or five days he required the patient to take no food except a thin broth and to take twenty grains of chloride of ammonium daily. Having taken a simple enema on the preceding night, the patient took in the morning a bowl of thin soup without salt followed in an hour by two ounces of castor oil. In the interval he took one half to one dram of powdered male fern either at once or divided into two or three doses, and also takes an enema of milk and oil. Some time after the last of the male fern was taken he took a dose of calomel and gamboge under the drastic action of which the tenia was generally discharged. This treatment caused a good deal of pain, often vomiting, sometimes necessitating the use of emollients and narcotics.

The treatment of Albers, of Bonn, was like that just described except that he used the ethereal extract instead of the powder. Lambert, instead of the preparatory broth diet, gave a diet of herring, onions and other coarse articles of food. Trousseau gave for one day a strict milk diet; second day fifteen grains of the ethereal extract of male fern taken fasting, and repeated every half hour until four doses are taken; third day same doses of male fern, and after the last dose two ounces of syrup of ether, and half an hour later an emulsion containing three drops of croton oil. The editor thinks that on the whole the powdered root is probably the most eligible preparation.

CONGENITAL STRICTURES OF THE RECTUM IN THE ADULT.

Prof. Trélat in a clinical lecture at the Hôpital de la Charité, calls attention to a class of cases of rectal stricture which have been little considered if not wholly overlooked by surgeons heretofore, viz., congenital strictures, the symptoms of which do not attract attention until adult life.

These strictures are valvular in form, thin and sharp, and are situated three to five centimetres from the anus, corresponding to the point of blending of the rectal cul-de-sac with the cutaneous depression in the process of development. He is disposed to regard all such strictures, so situated, as being congenital in their origin.

The mode of commencement of the grave symptoms is various. Sometimes a patient reaches the age of forty or more years without having experienced the least irregularity in the intestinal functions; sometimes there are in infancy transient, intermittent phenomena which become serious at a remote epoch. A third category includes those in whom during their whole life there are more or less serious intestinal disorders.

While he recognizes the difficulty or impossibility of satisfactorily accounting for the appearance of these manifestations or their intermittent character when the causative lésion is a permanent one, he calls attention to the fact that this is by no means an exceptional case in this regard, that there are various other affections of congenital origin which demonstrate their presence only in adult life.

As to this particular feature it is easy to understand that during early life it is simple, extensible, with no induration, perhaps even less close and narrow than it will be later. The abdominal muscles have all their vigor, and the intestinal, biliary and pancreatic secretions are abundant, making all the physiological conditions for easy defecation. But as age advances an induration of the valvular fold takes place, the muscle becomes weakened, the intestinal walls are

less lubricated, the fecal mass less softened, and the lesion, previously innocent, produces a trouble more and more pronounced.

Thus there may be inflammatory troubles, and consecutive fistulæ. The site of these last is constant: they are situated above the stricture; and are due to the valvular lesion itself.

This complication is frequent, but there are others more serious, whose course is the same; the obstruction offered to fecal matter by the stricture, and the changes of the rectal mucosa above the valvule, create a constant inflammatory state which results in perirectitis, adenitis, gangrenous phlegmons of the pelvis, finally interstitial nephritis and sclerous hepatitis which seem to be consecutive to these peri-rectal phlegmasias.

Prof. Trélat urges the importance of early diagnosis inasmuch as the lesion itself and its effects become more and more serious as time advances. He says that examination by rectal touch should be practised on the first indication of obstruction.

The prognosis is grave by reason both of the serious accidents which the lesion causes and on account of the nature of the treatment demanded.

The best mode of treating these affections, even when discovered early, Prof. Trélat does not think has yet been established.

REMARKABLE FECUNDITY.—Dr. C. L. Fletcher writes to the *Medical Record*, March 13, that a woman residing at Wing's Station, N. Y., has borne twenty-five children, and that in Northern Vermont he knew three sisters, one of whom had twenty-five, a second twenty-two, and the third eighteen children.

VETERINARY GRADUATES.—Diplomas were granted to twenty-eight graduates of the American Veterinary College, at Chickering Hall, New York, March 1, 1886.

THERAPEUTICAL SOCIETY.—A new society has been organized in Boston with this name.

BOOK REVIEWS AND NOTICES.

A SYSTEM OF OBSTETRIC MEDICINE AND SURGERY, Theoretical and Practical. For the Student and Practitioner. By ROBERT BARNES, M. D., etc., and FANCOURT BARNES, M. D., etc. Two hundred and thirty-one wood cuts. *Philadelphia: Lea Brothers & Co.*, 1885; 8vo.; pp. 884; cloth or sheep.

There are some wants which are "felt" and recognized; and to supply such wants some books are written. The *raison d'etre* for a much larger number of books which are published is that author and publisher esteem it a matter of personal advantage and profit to issue a book as a matter of advertisement on the part of the former, and commercial enterprise on the part of the latter. In a few cases the opportunities for observation and study and the experience which one has had make it a duty to the profession of which he is an honored member, and to the world at large, that he should put in a permanent form a record of the results of such experience; and such a volume creates for itself a want which did not previously exist. The volume now under consideration belongs to this latter class. Books already in the hands of the profession, such as Lusk's and Playfair's works, so admirably filled all recognized wants of the profession that it would at first seem almost folly for any one to attempt to issue another work on obstetrics; yet when it is known that a work in this department has come from the hand of Robert Barnes, than whom no one has done more to systematize operative obstetrics, a want is at once created and every practitioner who seek to keep thoroughly in advance with the best that is known and practised in obstetric art will wish to add this volume to his library.

The work is the result of the united labors of Drs. Robert and Fancourt Barnes, father and son, the father having contributed the portion treating of the history of gestation, puerpery, the mechanism of labor, and hemorrhage; "whilst much of that which relates to the prophylaxis of puerperal diseases, and the description of the operations is contributed by Fancourt Barnes." The chapter on embryology is prepared by Prof. Milnes Marshall, while Mr. Noble Smith gives a summary of our present knowledge of teratology.

We have not space for a critical analysis of this work, if this would be of advantage. We can only call attention to a very few points.

The chapters relating to gestation, its effects upon the mother's organism and the effect of disease of different organs, treat these topics more exhaustively than does any other treatise which we have seen. Diseases of the gravid woman are allotted nearly eighty pages, being considered as, first, the pathological exaggerations of the physiological conditions of gestation; second, pathological processes continued from the pregravid state or engrafted upon the gravid state.

Recent experience in this country would give a much higher value to the use of electricity in the treatment of tubal pregnancy than is accorded to it by our authors. (Vid. p. 246.)

As to the best method of removing the placenta, the preference, it seems to us, should rather be given to that of Credé, rather than to that which is described and recommended here.

The chapter devoted to "Puerperal Fevers" indicates by its title that our authors do not recognize one separate and specific "puerperal fever." The discussion is broad and fair, not dogmatic and arbitrary. They do not advocate such extreme measures as those advocated by Prof. T. G. Thomas before the New York Academy of Medicine, but such as it seems to us will be approved by every conscientious practitioner who is anxious to do the best posssible for his patients. E. M. N.

An Atlas of Clinical Microscopy. By Alexander Peyer, M. D. Translated and Edited by Alfred C. Girard, M. D., etc. First American from the manuscript of the Second German edition, with additions. Ninety plates, with one hundred and five illustrations, chromo-lithographs. *New York*: *D. Appleton & Co.*, 1885; 8vo.; pp. 194; cloth.

Said a friend who had some practical experience in work with the microscope, after looking carefully through the copy of this book which we loaned him from our table, "I have enjoyed exceedingly the examination of that Peyer's atlas, and I am going to commence saving up so as to buy one of my own." We are sure that anyone who has any interest at all in the application of microscopy to medical practice will feel just as he does, and when they see will wish to own the volume.

Familiarity with the microscope and what it reveals has come to

be a necessity with the progressive practitioner, and the practice of drawing carefully what is seen helps greatly to accurate knowledge. From that practice came the material from which this volume is prepared.

Over two-thirds of the entire number of plates are devoted to microscopical appearance of urinary deposits, those representing the crystalline formations being generally very admirable, though the tyro should not expect to find uric acid crystals uniformly presenting as vivid coloring as these illustrations represent.

The figures of tube-casts are not so perfect, and suggest a negative reply to the query whether it is possible to give on paper an adequate representation of the more delicate hyaline casts, as they are seen in the field of the microscope.

In succeeding editions of this work we should be glad to see a somewhat fuller elaboration of the subject of the appearance of the sputa in various conditions, as, for instance, in the different stages of pneumonia.

The drawings are in the main well executed. The letter press accompanying varies in its merit, some pages containing matter of very considerable value while others are trivial and unimportant.

The mechanical execution of the work is remarkably fine, reflecting credit upon the well-known publishers, from whose press we always expect good work.

MILK ANALYSIS AND INFANT FEEDING. A Practical Treatise on the Examination of Human and Cow's Milk, etc., and Directions as to the diet of Young Infants. By ARTHUR V. MEIGS, M. D., etc. *Philadelphia: P. Blakiston, Son & Co.*, 1885. 12mo.; pp. 102; cloth; $1.00. (St. Louis; J. H. Chambers & Co.)

There is no more promising way to lessen the large mortality to which infants, even of the most highly favored communities, are subject, than an enlightened attention to nutrition and diet. The vigorous infant will not contract some of the diseases of early life and will have strength enough on proper diet to live through what is fatal to its feebler brother. The "renewal of life" must be attended to in the care of infants more unremittingly than in the care of adults.

In aiming to take human milk as the standard for artificial food, we encounter all the difficulties arising from having to deal with a fluid which has not a fixed and stable composition; and later on, when we have accepted the average of numerous analyses of hu-

man milk as a fair representative of what that milk is, we have another difficulty to encounter in the application of our science. The cow's milk, which we must use as the basis of the artificial food and take new supplies of it every day, varies in composition as much as human milk varies.

Nature clearly does not supply these things ready to our hands, and the office of the physician is no sinecure.

Dr. Meigs's great point is that casein, the special nitrogenized food of infants, exists in human milk only to the amount of about one per cent instead of the much larger quantity which has generally been attributed to it. To counterbalance the much larger per centage of casein in cows' milk and make it alkaline, preventing the formation of indigestible coagula, and to supply the deficient sugar of milk, he constructs a food which he has quite extensively tested; "and in all instances in which it has been tried thus far it has proved successful." This is his formula for four ounces of his mixture: Cream, two tablespoonfuls; milk, one tablespoonful; lime-water, two tablespoonfuls; sugar water, three tablespoonfuls; the sugar water is made by adding seventeen and three-fourths drams of sugar of milk to one pint of water.

The formula of Dr. J. Forsyth Meigs for artificial food, upon which so many infants have thriven in the last thirty years, calls for in each four ounces approximately: cream, two-thirds of a tablespoonful; milk, two and two-thirds tablespoonfuls; water, five and one-third tablespoonfuls, the latter ingredient balancing the lime water and sugar water of the first formula; to this are added half a scruple of gelatine and half a teaspoonful of arrowroot. The part played by the arrowroot has been conjectured to be the prevention of the formation of hard coagula of the casein in the cows' milk.

The more recent formula is evidently a closer imitation of nature and gives promise of good results. Practically the physician is guided by the effects that he sees produced in individual cases, not persisting too long in his expectancy of what, from a priori reasoning, might be looked for.

For methods of analysis of milk and many interesting details, the reader is referred to the book itself which represents careful work that was well worth doing.

The author, the son of the late John Forsyth Meigs, to whose memory the dedication is addressed, had already presented his

views to the profession in various publications in 1882-84, but we have them here collected and matured. C. E. B.

A MANUAL OF AUSCULTATION AND PERCUSSION, embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M. D., LL. D. Fourth edition, thoroughly revised and enlarged. Illustrated with four wood-cuts. *Philadelphia: Lea Brothers & Co.*, 1885. 12mo.; pp. 280; cloth.

No extended notice is needed of Dr. Flint's Manual of Auscultation and Percussion. The fact that this edition had been thoroughly revised by the eminent author, who has so recently gone from his earthly work, adds interest and value to that which had long been known as a valuable treatise.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By ALFRED VOGEL, M. D., of Dorpat, Russia. With six lithographic plates. Translated by H. RAPHAEL, M. D., of New York. *New York: D. Appleton & Co.*, 1885; 8vo.; pp. XII. 640; cloth. (St. Louis: J. H. Chambers & Co.)

This well known work is here printed in the third American from the eighth German edition, bearing date 1884. So large a number of books upon Children's Diseases are now presented to the profession that there is some danger that Vogel may be overlooked as a foreign author belonging to the past. This would be both a mistake and a loss. No intelligent young physician can now take up this very comprehensive treatise without being stimulated by the acute and original observations upon the nature of children, and interested in the brief and clear descriptions of disease. In this edition the chapters upon Artificial Nutrition, Dentition and Nervous Diseases have been elaborated, and various new remedies are commented upon.

The imprint is sufficient guarantee that the workmanship of the book is upon the whole excellent, but a harmless quotation, misprinted by the way, of the 17th epigram of the satirist Martial is left by the proof-reader as a curious puzzle. The quotation is introduced with the phrase, "I would remind the reader of the words of the Satyrs." C. E. B.

NOTE BOOK FOR CASES OF OVARIAN AND OTHER ABDOMINAL TUMORS. Adapted from the Note Books of Sir T. Spencer Wells and the Samaritan Hospital, London. By JOHN HOMANS, M.D., etc. *Cupples, Upham & Co., Boston.*

An admirable means of keeping a full and accurate history of cases of this character. Every surgeon who has to do with cases

of abdominal tumors should provide himself with some such facilities for recording therein full details.

Brain Rest: Being a Disquisition on the Curative Properties of Prolonged Sleep. By J. Leonard Corning, M. D., etc. Second Edition, Revised and Enlarged, with additional Illustrations. *New York and London: G. P. Putnam's Sons*, 1885. 12mo. square; pp. 135; cloth, $1.00. (St. Louis; J. H. Chambers & Co.)

This little volume discusses the physiology of sleep, and emphasizes the importance of a sufficiency of healthy sleep. Then the author considers the nature, causes and treatment of insomnia, laying considerable stress upon a mechanical contrivance for diminishing the cerebral circulation by compressing the carotid arteries.

The Year-Book of Treatment for 1885.—A Critical Review for Practitioners of Medicine and Surgery. *Philadelphia: Lea Brothers & Co.*, 1886, 12mo.; pp. 316; cloth. (St. Louis; J. H. Chambers & Co.)

This little volume is a worthy companion to the "Year Books of Treatment" for preceding years, of which we have had occasion to speak favorably. The reviews of therapeutic advancement by such writers as T. Lauder Brunton, Thos. Bryant, Dyce Duckworth, Reginald Harrison, Frederick Treves, etc., are valuable contributions to our medical literature, and we trust that the series will be continued from year to year.

Six Lectures upon School Hygiene. Delivered under the Auspices of the Massachusetts Emergency and Hygiene Association, to Teachers in the Public Schools. *Boston: Ginn & Co.*, 1885. 12mo., pp. 291; cloth, 88 cents. (St. Louis; J. H. Chambers & Co.)

A valuable series of lectures, which may be read with profit by teachers, school directors and trustees, parents and advanced pupils. It contains, well expressed, a deal of information with regard to many matters of sanitary importance, concerning which the laity are generally ignorant, and members of our own profession are to apt too be inattentive. Such volumes as this should be widely circulated.

How we Treat Wounds To-Day. A Treatise on the subject of Antiseptic Surgery which can be understood by beginners. By Robert T. Morris, M. D. *New York and London: Geo. P. Putnam's Sons*, 1886. 12mo.; pp. 162; cloth. $1.00. (J. L. Boland; J. H. Chambers & Co.)

The author of this little manual has presented in terse, concise sentences a very excellent résumé of the methods of treatment which characterize the practice of those who most strongly em-

phasize the modern antisepsis. He describes first the different agents and appliances which are made use of in such practice, and then in the last half of the book describes the details of treatment of various typical wounds.

While the matter of this volume is valuable, and in some respects the style is creditable, there is a peculiarity which is best described as "sophomoric." There is a positiveness of assertion and an arrogance of manner which would not be pleasing in one of many years' experience, and certainly is of questionable taste in one whose term of service as house surgeon in Bellevue hospital ended only three years ago.

FRACTURES AND DISLOCATIONS. By T. PICKERING PICK, F. R. C. S., etc. Illustrated with 93 engravings. *Philadelphia: Lea Brothers & Co.*, 16mo.; pp. 524; cloth. (St. Louis; J. H. Chambers & Co.)

This is called a clinical manual for practitioners and medical students, and it is essentially clinical in character. The author has drawn his material largely from his own experience in the wards of St. George's Hospital, in London. He has evidently kept himself somewhat familiar with the writings and practice of leading American surgeons, as is shown by frequent reference to them upon his pages.

We notice that Dr. Gurdon Buck's name is constantly spelled Busk.

The author writes in a pleasant style, and even surgeons of considerable experience will find that they can read it with profit.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Fractures, Dislocations, Ligature of Arteries, Amputations, and Excisions of Bones and Joints. By J. EWING MEARS, M. D., with four hundred and ninety illustrations. *Philadelphia: P. Blakiston, Son & Co.*, 1885. 12mo.; pp. 794; cloth, $3.75; sheep, $4.75. (St. Louis, J. H. Chambers & Co.)

This manual was prepared by Dr. Mears in response to requests from his students for a condensed work on the subject treated. The range of subjects discussed is pretty fully indicated upon the title page.

Hardly as much stress is laid upon the use of the antiseptic method as might have been expected; and we find no mention of the operation of wiring the patella.

Dr. Mears has succeeded admirably in condensing his teaching.

His style is clear and pleasing, and for students and young practitioners his book will be very useful and valuable.

In revising his work Dr. Mears has materially improved it, and we doubt not other editions will be called for speedily as has this second one.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Fractures and Dislocations. By T. Pickering Pick, F. R. C. S. Philadelphia: Lea Brothers & Co.; 12mo.; pp. 524; cloth.—Manual of Auscultation. By Austin Flint, M. D., LL. D., etc. Fourth edition, thoroughly revised and enlarged. 8vo.; pp. 280; cloth, $4.50; sheep, $5.50. —Treatise on Diseases of Infancy and Childhood. By J. Lewis Smith, M. D. Sixth edition, thoroughly revised. 8vo.; pp. 280; cloth, $4.50; sheep, $5.50.—Handbook on the Diseases of the Nervous System. By James Ross, M. D., etc. 8vo.; pp. 726; cloth, $4.50; sheep, $5.50.—Year Book of Treatment for 1885. Phila., Lea Brothers & Co., 1886, 8vo., pp. 316; cloth.

PAMPHLETS AND REPRINTS.—What is Medicine? Annual Address delivered before the American Academy of Medicine, Oct., 1885. By Albert L. Gihon, A. M., M. D.—Catarrh of the Upper Air-Tract. By Samuel Sexton, M. D. (Med. Rec.)—Cocaine in Hay Fever. By Seth S. Bishop, M. D. (Am. Med. Assoc.)—On the Causation and Nature of Hypertrophy of the Prostrate. By Reginald Harrison, F. R. C. S.—Eczema. —By Geo. H. Rohé, M. D.—The Production and Prevention of Perineal Lacerations During Labor. By Henry T. Byford, M. D. (Jour. Am. Med. Ass'n.)—Cases of Pelvic Abscess. By Henry T. Byford, M. D.— State Board of Health Bulletin, Feb. 1886, Nashville, Tenn.—Tetanus. By N. Senn, M. D.—Avena Sativa in the Treatment of Opium Addiction. By J. B. Mattison, M. D. (Med. Bull.)—Surgical Treatment of Cysts of the Pancreas. By N. Senn, M. D. (Jour. Am. Med. Ass'n.)— Note-Book for Cases of Ovarian and other Abdominal Tumors. By John Homans, M. D.—The Recent Progress of Obstetric and Gynecological Medicine. By Thomas Moore Madden, M. D., etc.—On the Treatment of Uterine Tumors. By Thomas Moore Madden, M. D., etc.—American Ornithologists' Union.—Report of a Case of Multiple Myomata of the Skin, accompanied by Severe Pain; with Remarks. By W. A. Hardaway, M. D., etc. (Am. Jour. of the Med. Sci., Apr., '86.)

REPORTS ON PROGRESS.

SURGERY.

Thoracic Aneurism Treated by the Introduction of Steel Wire into the Sac.—W. CAYLEY reported to the Royal Medical and Chirurgical Society, February 23, the case of a man, æt. 48, who was admitted into the Middlesex Hospital, June 5, 1885. He had been suffering from symptoms of a thoracic aneurism since November, 1884, but it was not till five days before his admission that a pulsating tumor made its appearance at the root of the neck, rising about three inches into the neck behind the right sterno-clavicular articulation.

The patient was at first treated according to Tufnell's method and given large doses of iodide of potassium.

The tumor continued to increase in size, and it was evident that it must soon either burst externally or extravasate among the tissues of the neck.

June 24th Mr. Hulke introduced into the sac, through a fine cannula, forty feet of steel wire. This caused no constitutional disturbance or local pain, and this portion of the aneurism became completely consolidated. Towards the middle of August signs of the extension of the intrathoracic portion of the aneurism—increasing dyspnea, severe paroxysmal cough—became more marked, and there was an increase of pulsation behind the sternum and towards the left sterno-clavicular articulation.

As it was evident that the aneurism must soon prove fatal from pressure on the trachea, it was determined to endeavor to consolidate the part of the sac producing the pressure. Accordingly, on September 10, Mr. Gould, in the absence of Mr. Hulke, introduced a cannula just above the left sterno-clavicular articulation, directing the instrument obliquely towards the middle line, and introduced thirty-four feet, nine inches of wire. No constitutional disturbance followed, but no relief was given to the symptoms, and the patient died in a paroxysm of dyspnea September 19.

On post-mortem examination a large aneurism was found spring-

ing from the ascending part of the arch, and communicating with the vessels by a very large orifice: the whole of the upper portion was completely filled by clot, embedded in which was the wire. The walls of the aneurismal sac, where it projected into the neck, consisted only of a little condensed connective tissue. The lower portion of the sac, near its origin from the aorta, caused compression and flattening of the trachea just above its bifurcation.

The first operation produced the desired result in preventing the imminent rupture of the aneurism. The size and connexions of the sac rendered the second operation ineffectual.

Changes in Bone and Soft Tissue after Amputation.—GEORGE POLLOCK, F. R. C. S., in a paper before the Royal Medical and Chirurgical Society, includes not only such changes as are met with in the bone of the stump of an amputated limb, and in parts affected with paralysis, but also those observed in parts which have extra work thrown upon them in compensation for the loss of other parts with which they were originally associated and had to act. In an old man who had undergone amputation of one thigh many years before death, the femur on the amputated side was found wasted, and the neck joined the shaft at a much more open angle than natural, while on the other side the femur was hypertrophied and the neck joined the shaft at a right angle. The condition observed in a man whose thigh had been amputated in infancy was related. The bones of the right extremity from a case of paralysis were also exhibited. They were greatly atrophied and have undergone fracture; while the excessive hypertrophy in one limb after amputation of the other was illustrated by a well marked case. The author remarks that the alterations in both muscle and bone are often more rapidly effected, and also more extensive than is generally supposed. He draws prominent attention to the fact that in the cases related two distinct and different processes—the one atrophy, and the other hypertrophy—go on side by side, and asks whether this fact may not admit of practical application; whether in appropriate cases, by a careful combination of exercise, position and rest, together with the use of mechanical appliances, we may not do something to accelerate improvement.

Amputation at the Knee-Joint by Disarticulation.—THOMAS BRYANT, in a paper read December 8, 1885, before the Royal Medical and Chirurgical Society, says that the operation of removal of

the leg by disarticulation at the knee-joint is still regarded with some suspicion, and is not frequently resorted to, amputation through (or just above) the condyles being generally preferred. This operation requires for its success that the disease or injury be confined to the leg, that the condyles of the femur be uninvolved or very slightly affected, and that there be a sufficiency of healthy soft parts below the knee for the formation of a good flap. If these conditions be not present, some other method of amputation must be adopted.

Where there was no sloughing, no trouble was experienced with the articular cartilage on the condyles of the femur, and after healing the soft parts moved freely over the end of the femur. The patella was preserved, its removal being found to be quite unnecessary.

The author endorses completely Stephen Smith's method by lateral hooded flaps, and strongly urges its application to cases of amputation in the leg also.

The muscle substance is generally included in the flap in thin subjects, but not in others. The resultant stumps in the leg thereby obtained are excellent.

This method gives a better covering to the condyles of the femur, and the flaps are less prone to slough than is the long anterior flap of Pollock. One case in five of the former sloughed, and rather more than half of the latter class of cases. Smith's method also places the cicatrix entirely behind the condyles, and out of harm's way, whereas, by Pick's method, the cicatrix comes to lie in the intercondyloid notch. Moreover, Smith's plan permits no bagging of fluids, the stump being in the best position for drainage.

The author advocates the leaving of the semilunar cartilages *in situ*, as of great advantage to the case, the soft parts being thereby all held well in place, and the fascial relations preserved. Dr. Brinton, as early as 1872, also advised this point of practice.

Finally, the author summarises the advantages of this form of operation over amputation through the thigh in the following words:

1. The lessened shock of operation.
2. The lessened section of tissues, and the non exposure of the muscular interspaces of the thigh.
3. The escape from the necessity of sawing the femur, with attendant risks.

4. The preservation of the attachments of the thigh muscles, and consequently the greater mobility of the stump.
5. The useful character of the resulting stump.

MEDICINE.

Indications for Chloral in Heart-Disease.—M. GERMAIN-SÉE holds that hydrate of chloral is efficacious in cardiac affections which are characterized by increased vascular tension, or by an energetic cardiac impulse, and more particularly in cardiac dyspnœa, with or without insomnia. When there is enfeeblement of the heart and fatty degeneration, one should withhold it or use it in small doses, for fear of provoking a veritable collapse. Hydrate of chloral acts, first, as a hypnotic; second, as a modifier of reflex power of the spinal cord; third, as a regulator of the action of the heart, both as to frequency and force; fourth, as a depressor of vascular tension; fifth, as a refrigerant and modifier of the respiration.—*L'Union Méd.*, Jan. 3, '86.

Bismuth Preparations.—The editor of *The Therapeutic Gazette*, Feb. '86, notes the difficulty heretofore found in administering bismuth in large doses on account of the fact that the only ores then in use were those of central Europe, all of which contained an abundance of arsenic. This danger is relieved now by the discovery of bismuth ores in South America, which are free from contamination with arsenic.

He thinks that the bismuth preparations are less commonly used as local remedies in inflammation of the mucous membranes than their value would demand. He regards them as distinctly sedative, and at the same time slightly astringent, and available even at the most acute stage of mucous inflammation.

Thus, at the beginning, an acute nasal catarrh will often be greatly relieved by blowing bismuth freely into the nostrils. He suggests the addition of five grains of sodium carbonate to two drams of the bismuth. A recent personal experience of our own emphasizes the value of this mode of treatment of an acute nasal catarrh, or severe "cold in the head." Most decided relief to the profuse exudation and sensation of fulness of the head was experienced from snuffing into the nostrils a powder composed as follows:

℞ Bismuthi subnitrat., - - - - - - ʒi.
Morph. sulph., - - - - - - gr. i.
Pulv. acaciæ, - - - - - - - ʒss. M.

When it is desired to have the effect of bismuth upon the stomach the writer mentioned prefers to give it generally about half an hour before meals, and in doses not less than ten grains. For satisfactory effect upon the intestinal mucous membrane the dose should be from a scruple to a dram, and is best administered about two hours after meals, when the contents of the stomach are being hurried on into the intestine.

Large Dose of Belladonna.—H. C. Alderton reports a case in which a child three years old took about forty-five minims of the tincture of belladonna (B. Ph.) in a mixture which had been ordered for another child in doses containing three minims each. The only effects apparent to the mother were sleep for two hours, and thirst for the remainder of the day.—*Brit. Med. Jour.*, Jan. 30, '86.

Ditana Digitifolia, a New Galactagogue.—Prof. Prota-Giurleo calls attention in Italian journals to the value of the Mexican plant called Ditana digitifolia as as a galactagogue. He mentions reports of several cases in which the use of an infusion had produced a marked influence upon the milk-glands of nursing women, causing a considerable secretion of milk even in cases where it had been nearly or quite suppressed. An ethereal tincture of the flowers made into a kind of elixir with syrup is said to have been brought out by an Italian pharmacist under the name of "gallatofore."—*Therap. Gaz.*, Feb., 1886.

Anti-Galactics.—In connection with report of the galactogogue properties of ditana digitifolia, as given above, Prof. Giurleo calls attention to decided antigalactic properties which he says exist in rhamnus alaternus and ligustrum vulgare. This property of the rhamnus alaternus, he says, was known forty years ago, but was practically over-looked, while the effect of the ligustrum vulgare he has himself recently discovered. He finds it to be best administered as an infusion—3 grammes (grs. xlv) of leaves to 150 grammes (ʒv) of water twice a day for several days.—*Therap. Gaz.*, Feb., 1886.

Emulsion of Cod Liver Oil.—R. C. Kenner recommends the following as an eligible preparation of cod liver, being, he claims,

more palatable and more effective than the commercial emulsions:

℞ Ol. morrhuæ, - - - - ℥iv.
Syr. hypophos., - - - - ℥ij.
Mucil. tragacanth., - - - ℥jss.
Aq. menth. pip.,
Aq. cinnamom, aa., - - - - ℥j.
Spts. lavandul. co., - - - ℥ij.

M. Sig. Tablespoonful for an adult. When not to be used immediately, or is dispensed in warm weather, it should contain one drop of the oil of gaultheria for each ounce of mucilage to prevent its decomposition and change of color from pink to black.—*N. Eng. Med. Mo.*, Feb., '86.

Vehicle for Quinine.—R. C. KENNER commends the syrup of yerba santa as the best vehicle for the administration of quinine. He says that five grains of quinine is effectually disguised in a dram of the syrup.—*N. Eng. Med. Mo.*, Feb., '86.

OBSTETRICS AND GYNECOLOGY.

Treatment of Pelvic Abscesses in Women.—PAUL F. MUNDÉ concludes a paper, in which he records the result of a considerable experience in the treatment of pelvic abscesses in women, with the following observations:

1. Pelvic abscess in the female is not very common, in proportion to the great frequency of pelvic exudations, and probably does not occur in more than ten per cent of all cases, the majority of exudations terminating in spontaneous absorption.

2. Pelvic abscess may be either extra-peritoneal, the result of cellulitis (by far the most common variety), or intra-peritoneal, the consequence of pelvic peritonitis. If intra-peritoneal, the adhesive inflammation between pelvic viscera and intestines may so seal the abscess-cavity as to render it practically *extra*-peritoneal. Abscess of the ovary and pyo-salpinx do not belong in the category of "pelvic abscess" proper, and do not fall under the same therapeutic rules, except when, by agglutination to the abdominal walls or to Douglas' pouch, they become virtually extra-peritoneal.

3. Small, deep-seated pelvic abscesses, not exceeding a capacity of two ounces, and minute multiple abscesses in the cellular tissue, can

often be be permanently cured by evacuating the pus thoroughly with the aspirator. The surrounding exudation is then rapidly absorbed.

4. About one-half of the abscesses open spontaneously into the vagina, rectum, bladder, or through the abdominal wall and ischiatic fossa. These cases may gradually recover without treatment, or the sinuses may persist until closed by surgical interference.

5. Abscesses containing more than two ounces of pus should be opened by free incision along an exploring needle or grooved director, cleared of debris by finger or blunt curette, and drained and irrigated, if necessary, through a drainage tube.

6. This incision should be made at the spot where the pus points most distinctly, which is usually the vaginal vault.

7. In a certain number of cases, the pus points through the abdominal wall, generally in the iliac fossa, and the incision should then be ample, and free drainage should be secured.

8. When the pus has burrowed deep into the pelvic cavity, and a probe can be passed from the abdominal incision down to the vaginal roof, mere abdomino-cutaneous drainage will not suffice, and a counter-opening must be made in the vagina, and a drainage tube carried through from the abdominal wound into the vagina. This drainage tube may have to be worn for months. In making this incision, care should be taken not to wound the bladder.

9. The opening of a pelvic abscess which points through the abdominal wall, does not differ from, and is no more dangerous than the same operation elsewhere on the cutaneous surface of the body. It is not an "abdominal section" or a "laparotomy," in the sense that these terms are now used to indicate the surgical opening of the peritoneal cavity.

10. Chronic pelvic abscesses, which have burst spontaneously, and have discharged through the vagina, rectum, or else where for months or years, are exceedingly difficult to cure. This is particularly the case when the opening is high up in the rectum.

A counter-opening in the vagina, or enlarging the opening if there situated, the curette, stimulant irrigation, etc., may occasionally succeed, but usually fail.

11. "A perityphlitic abscess may point through the abdominal wall, and simulate a pelvic abscess proper. Aspiration will settle the diagnosis; treatment is the same.

12. The majority of cases of pelvic abscess recover; at least the mortality is small.—*Am. Jour. of Obstet.*, Feb., 1886.

Menstruation in Advanced Life.—Drs. T. A. and B. M. Emmet each reported a case of persistent menstruation at the age of seventy years, the flowing having occurred regularly from the time of puberty except during pregnancies in the child-bearing period, and during a certain period, the length of which was not stated, at the age of forty-five or fifty years.—*Am. Jour. Obstet.* Feb., 1886.

The American Public Health Association.—The Fourteenth Annual Meeting of the American Public Health Association will be held at Toronto, Ont., October 5-8, 1886. The Executive Committee have selected the following topics for consideration at said meeting.

I. The Disposal of the Refuse Matters of Cities and Towns.

II. The Condition of Stored Water-Supplies, and their Relation to Public Health.

III. The Best Methods and the Apparatus Necessary for the Teaching of Hygiene in the Public Schools, as well as the Means for Securing Uniformity in such Instruction.

IV. Recent Sanitary Experiences in connection with the Exclusion and Suppression of Epidemic Disease.

V. The Sanitary Conditions and Necessities of School-Houses and School-Life. (See Lomb Prize Essay.)

VI. The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding them. (See Lomb Prize Essays.)

VII. Plans for Dwelling-Houses. (See Lomb Prize Essays.)

All papers hereafter presented to the Association must be either printed, type-written, or in a plain hand-writing, and be in the hands of the Secretary at least twenty days prior to the annual meeting."

This order will be strictly enforced, and no paper will be read at the said meeting that has not been received, examined, and approved by the Executive Committee, merit alone determining that. Papers that have been published will not be received.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting Feb. 18, 1886. President Dr. McPheeters in the chair.

PROLAPSE OF CORD.

Dr. Papin.—I have been practising medicine since 1848. In January, 1864, I saw for the first time a case of prolapse of the cord in labor. It was in a French primipara about 30 years old. The labor was exceedingly slow, the pains very inefficient. The midwife who called me to attend the case had had several cases of the kind and all proved fatal to the child. I was very much embarrassed with this case, but having read up a great deal in gynecology, I placed this woman on her knees and elbows, and, finding the chest still too high, I made her spread out her arms cruciform and raised her hips as high as possible. I coned my hand, gradually introducing my fingers into the vagina: the cord came into my fingers, and I worked it back past the promontory of the sacrum. The presence of my hand irritated the womb and produced a pretty fair contraction. The head slipped down, and when I removed my hand the cord remained in position. As far as I know, the manipulation was original with myself. From that time until August, 1865, I had the extraordinary number of fifteen such cases. I saved the lives of thirteen children. One died in consequence of applying the forceps; after I had returned the cord, it was impossible to deliver the woman without applying the forceps. The child weighed thirteen and a half pounds, and when it was born I found that unfortunately the forceps had caught a knuckle of the cord, and the child died. The other child died on account of some malformation of the pelvis. I could not keep the cord up and was obliged in this case also to apply the forceps. The child was not very large. I did not compress the cord with the forceps, but the head of the child did, and it died in birth. These cases have been pub-

lished. Since 1865 I never saw another case until last week. This was an Irish woman who had borne seven children. The German midwife recognizing the accident, requested them immediately to send for a physician. I got there about 3 o'clock in the afternoon, and learned that the bag of waters had broken in the morning at about 8 o'clock and that this knuckle of cord had come down into the vulva. Though she had had no pain that day she was lying in bed and the midwife was sitting by her, keeping the cord warm by making application of cloths dipped in warm water and trying to keep the cord within the vulva. She thought the child dead, but on feeling the cord I found it pulsating very fairly. I placed the woman in the knee-elbow position and replaced the cord. There was rather more prominence of the sacrum than usual; nevertheless, I replaced the cord and calling the midwife's attention to the fact, told her that the woman would very likely be delivered of a living child. The husband came the next morning and said that the child was born alive. I report this case because this accident is almost an opprobrium to the profession. Sometimes we can succeed in delivering a live child by turning and delivering rapidly. Dr. Yarnall, who witnessed my two last operations in 1865, has attempted the same since, but he does not like the operation; he prefers turning and delivering rapidly. The replacing of the cord is more satisfactory to me. Delivery by podalic version rapidly accomplished in a capacious pelvis may be the means of saving the child's life, but I prefer to give the child the chances of an ordinary labor.

Dr. Scott asked if Dr. Papin noticed the condition of the pelvis in these cases?

Dr. Papin.—In nearly all of them it was normal; in some of them larger than usual but nothing to account for the accident. Possibly in the earlier cases, as it proved in the first case, it was due to the flabby condition of the parts, to the extremely elongated cord which had not twisted around the neck or body of the child as is usual, and the os becoming dilated, the waters breaking and no pain to press the head down into the pelvis, the cord naturally came down; but I cannot say that there was anything abnormal in the formation of the pelvis in any of these cases except in one in which there was a kind of bilateral curvature of the pelvis. In that case the child died by the pressure of the head of the child against the cord. In that case labor was extremely prolonged.

Dr. Scott.—I have had some such cases to deal with. There are three or four causes for this prolapse of the cord. Among the principal ones is the heart shaped pelvis, where the antero-posterior diameter is less than it should be. Another cause is the pendulous belly, where the abdominal walls are relaxed, and the belly falls over. Another cause for it is when there is a large accumulation of water, and the labor pains are very severe, and the water breaks very suddenly during the pain, then the cord is washed down. In delivering a woman some time ago with a pendulous belly I had her on her back, and kept the belly in proper position by a bandage, and made the nurse press her abdominal walls in the proper natural position. Dr. Pallen used to teach us to put the woman on her knees and elbows. A question has arisen in my mind as to whether women are right in the notion that many of them have as to the cause of this trouble. Ladies sometimes tell me where there has been prolapse of the cord without one of those rushes of water to account for it, that within the last two or three days before labor they had been cleaning house, reaching up and dusting furniture, hanging pictures and work of that character, and it has occurred to me that possibly this may have a tendency to displace the cord.

Dr. Papin.—I have never known of a pregnant woman who did not hang pictures, and climb on step-ladders and do house-cleaning work a few days before she was confined; they do it at that time, although they never think of doing it at any other time, and a great majority do not have prolapse of the cord.

Dr. Scott.—In regard to podalic version I believe I should prefer to deliver with the forceps where we have a natural antero-posterior diameter.

Dr. Papin.—There are some advantages in podalic version because there is no difficulty about the passage of the head; the podalic version gives a less diameter to pull through.

Dr. Prewitt.—Of all the causes which Dr. Scott enumerates, only one, it seems to me has any influence in causing prolapse of the cord; that is the presence of large volumes of water. The position of the uterus has but little influence.

Dr. Papin.—In my last case the cord was not twisted; there was a heart-shaped pelvis; there was not an immense amount of water. Of course I arrived after the water was evacuated, but the midwife, an intelligent woman, was present shortly after the evacuation of the water, and she said there was not an extraordinary

amount, but the bag of waters broke without any sensible pain or dilatation.

Dr. Briggs.—In what particular part of the pelvis did the majority come down—laterally?

Dr. Papin.—Always laterally.

Dr. Briggs.—And you pushed it up as high as the neck of the child.

Dr. Papin.—I took no note of the neck of the child, but I felt for the promontory of the sacrum, and then pushed the cord up to that. It is a matter of little importance where the neck or shoulders of the child are.

Dr. Prewitt.—I understand how a large quantity of water suddenly giving way will cause the cord to be carried along with it, and especially if there is a severe pain at the time of the membranes. Then where there isn't much pain, if the membrane is not very thick and gives rise to a large rent, the cord might drop out, but the position of the uterus certainly ought not to make any difference. The child with the cord lies in a sac. We don't know what position the cord does occupy. If the sac was full of water, it might very readily gravitate towards the cervix, because that is the most dependent position. So far as the shape of the pelvis is concerned I don't see how that would make a great deal of difference, because if the pelvis is somewhat heart-shaped the uterus and the opening of the cervix do not take that shape. Whatever opening there is is filled with the head of the child.

Dr. Papin.—The head is not always of central implantation, it might come in sidewise so as to leave either side open to all sorts of mischief.

Dr. Prewitt.—Does it? That is the question. Do you ever find a space which is not occupied by the head whether the pelvis is heart-shaped or not?

Dr. Papin.—When the labor pains are off the head will very likely rise above the superior strait.

Dr. Scott.—We have all seen cases where the head was pressed down into the neck of the uterus, yet when the pain is off the woman gives a sudden catch and the child shoots away back.

Dr. Prewitt.—But the cervix collapses around the head: nobody ever saw the cord prolapsed during labor after the head had lodged in the cervix.

Dr. Scott.—Of course it does not when the head lodges against the cervix: it is before that.

Dr. Papin.—But the head doesn't come into the cervix until it is engaged in the pelvis proper. The pressure of the head above the superior strait rarely dilates the neck, it is the sac of waters that does that.

Dr. Prewitt.—I think the method which Dr. Papin suggests is better than podalic version; there is always danger in podalic version, and if it can be accomplished by the other method it displaces that danger. I should not think of attempting podalic version in a case of this kind until I found I was unable to replace the cord.

Dr. Gehrung.—I agree in the main with Dr. Prewitt that as long as the os uteri is not abnormally dilated there is not much danger of prolapse of the cord. Prolapses of the cord seems to be, from all I can see, especially produced under conditions where the presenting part does not fill the os uteri. The head may descend in many different positions and does not always fill the cavity. This is especially true in malpositions even if we exclude malpositions of the head. If the head does not strike the os uteri in a normal axis, if either the face or neck present in the os uteri, it may or will leave a space through which the umbilical cord may be extruded. This is especially so in cases of crossed and oblique presentation, where the child's abdomen presents and the cord is unnaturally relaxed.

Dr. Scott.—Where we have an abnormal length of the cord there is apt to be prolapse.

Dr. Gehrung.—That makes the possibility. Without an abnormal length of the cord there is almost no possibility unless it is a complete cross or podalic presentation, then we have a proportional excess of cord which would not have existed with a natural position. We conclude that prolapse cannot take place without a malpresentation of the head; it is not the malformation of the pelvis that enables the cord particularly to prolapse, though with malformation of the pelvis we so frequently have malpositions and faulty presentations.

I do not see how reaching up or hanging pictures or anything of that kind can have an effect upon the child, or cause prolapse of the cord.

Dr. Prewitt.—I cannot see how the fact that the woman has a pendulous belly could make any difference at all or alter the relationship of the cord to the child. The cervix is certainly not altered in its relation to the body of the uterus. If we could estab-

lish the fact that pendulous belly would promote prolapse of the cord, then of course every obstetrician ought to take especial care to see that this is rectified. I think the only cause for the prolapse of the cord is the sudden giving way of the bag of waters so that the cord gravitates into the opening before the head has time to fill it. If there is pain enough to rupture the membranes, nobody will see two inches left between the cervix and the head of the child.

Dr. Papin.—Did you never see the bag ruptured without pain?

Dr. Prewitt.—Oh yes, sometimes, but it is not likely to happen. Now the head of the child immediately comes down into the opening, and the cervix lies in close apposition to the head. I take it that prolapse of the cord never occurs except at that time when the membranes give way and the water rushes out. I don't think it ever occurred at any other time; I don't think that prolapse of the cord ever did occur an hour after the rupture of the membranes. I would like to ask the gentlemen if they ever have found a space between the cervix and the head after the water had broken?

Dr. Gehrung.—I have found it very frequently: it is very easy to introduce the fingers beside the head.

Dr. Prewitt.—Of course you can but it lies in contact with the head.

Dr. Gehrung.—And, if during the intervals of pain, when relaxation of the organ takes place and the head is withdrawn, if there is anything at all to take the place of the head, it will fall down and take the place of it.

Dr. Prewitt.—What withdraws the fetus?

Dr. Gehrung.—The relaxation of the womb itself.

Dr. Prewitt.—But why does the head recede, is it in consequence of the resistance which it meets within the womb?

Dr. Papin.—It is in consequence of gravitation. The relaxation of the uterus would give the child a chance to go back.

Dr. Prewitt.—What takes it back?

Dr. Gehrung.—If I may be permitted to stray so far from the subject of the discussion I will make a statement of my views as to how these conditions are produced. I have the misfortune to differ with all writers on the subject. The best descriptions up to the present day which you can find are in Lusk's Midwifery. He gives about every view that is given in very distinct terms; but it is said that the contractions begin at the fundus and move downwards or begin actually to all intents and purposes all over. Now it seems to me it

would be very bad practice of nature to waste power by making such ill application of physical force, to waste power all over, to compress a body and make it go forward. It seems so unnatural for nature to waste its strength in such way that I cannot for a moment accept it. Besides I have had an opportunity of studying certain phenomena during labor and I could only explain them in the following way: I found on applying my hand to the fundus, (the patient had complained of some pain there and wanted me to press there) during the pain, that as the pain ceased the uterus descended, became shorter: as a new pain came on before the patient was aware of it, or before I should have been able to diagnosticate it by the touch in the vagina, I found that the uterus ascended again. Now how can all that be explained, why does the uterus conduct itself in such a way, why does it elongate when the pains come instead of shortening? It goes down and it goes up. Now that made it quite plain that during the state of relaxation the womb is spread out, it broadens and fills the abdominal cavity as is recognized by all observers. As the pain comes on the circular fibres first contract and transform the womb into a longitudinal cylinder; then longitudinal fibres come into action and the contents are driven through a straight tube instead of through a generally contracted cavity. Upon this contraction follows a general relaxation. Now supposing that I am correct in my statements, I think that Dr. Prewitt will probably see how the child recedes into the womb and why it does so: the womb relaxes in length and the child withdraws; there is no pressure impending on it because the organ is tired. During this relaxation it may be possible for the umbilical cord to slip in front of the presenting head.

Dr. Prewitt.—The idea that a child, because the womb relaxes, should deliberately draw itself back seems to me unphilosophical; where is the force? The child cannot spring back of its own accord in the absence of a force. In the absence of any force it becomes an inert body; it lies where it is. What does carry it back? It is the resistance of the tissues in front which are placed on the stretch, and when the force from behind is withdrawn it is naturally pushed back, the uterus is making a tremendous effort to push it down against something. the tissues are on the stretch, and the moment you withdraw the force these spring back and the child goes with it. The child does not spring back and leave a cavity that you can stick your hand in between the neck of the uterus and

the head of the child; the head will remain in contact with the cervix. Of course when the cervix is relaxed you can slip your fingers in and around the child; not because there is any space there, but because the tissues yield to the pressure of the fingers. Nobody ever saw a child slip back of its own accord, I am sure. It is the vis a fronte that carries it back in the absence of the vis a tergo.

Dr. Scott.—What is it that causes the absence of the vis a tergo?

Dr. Prewitt.—Why the relaxation of the fibres of the womb. Dr. Goehring holds that there is first a contraction of the circular fibres, forming a cylindrical space. As the body is forced forward it puts all the fibres on the stretch and the moment that the pressure from behind is removed the stretched fibres force the body back into the relaxed cavity.

Dr. Goehring.—Dr. Prewitt is perfectly correct in stating that an inert body never moves; the child has to be considered an inert body. It does not spring back of its own accord: it is thrown back by the inclined planes onto which it had been squeezed, or it may fall back.

Retained Pessary.

Dr. Prewitt.—Recently I met with a case of retained pessary. It had been worn for nine or ten years: the physician that had charge of the case discovered the pessary in the vagina, and asked me to go with him to remove it. The statement of the woman was, that ten years ago she became insane for awhile, or was sent to an insane asylum. She had been suffering with some displacement of the womb, and while in that condition of insanity a large pessary was introduced. The physician neglected to inform her of the fact so that nobody knew of it until a few months ago when a physician saw her, and finding some uterine trouble made an examination and found this pessary. After her second marriage her husband wanted something done about the matter. The only operation that I thought could be done was to cut it out of the tissues in which it was completely imbedded. I cut through the tissues the whole length; and at one point it was necessary to cut half an inch in depth to get it out.

Dr. Papin.—I have had a similar experience. An Irish cook, on Tenth street near Walnut, had a complete procidentia. I intended to operate on her pretty soon, but I wanted to heal up the parts

which were lacerated a good deal, and temporarily placed a pessary which I purposely rounded by placing it in hot water a minute so that it fitted very well although it was apparently a little too large. Advised her to use washes and a cotton tampon saturated with glycerine and about two per cent of carbolic acid. I was pushed for time during the session of the Medical School and really forgot all about the woman until one day I passed in the neighborhood and called in to see her. She said, "Well you have cured me." "No I didn't, you come down to the clinic tomorrow and we will see how you are getting along." She did come and I then found that the ring had become imbedded in the cul-de-sac of Douglas and could not be removed without cutting the tissues in which it was imbedded. You could see the cicatricial line where the tissues coming in contact, had healed up over the pessary. It didn't occur to me to cut my way through to the pessary, but wishing to see the ideas of the class I asked each one how to get the pessary out, and each said that it would be necessary to cut it out as practised by Dr. Prewitt in the case just reported. However I took a pair of forceps and slipped it right out after having cut the pessary itself and not the new made flesh, as we would take an ear-ring out of a woman's ear. She had been wearing this for two months but had not suffered any from it and had made no complaint. There was a remarkable point about the case: she was cured, for the tissues in the cul-de-sac had drawn the womb up; and she never again had falling of the womb. She still had cystocele but very little rectocele left.

Dr. Scott.—A woman came to me from the country, who had been in the city under treatment, and the physician had introduced a ring pessary. She went home and wore it for a year or so and derived so much benefit from it that she concluded to make one herself. So she took a piece of steel which ladies sometimes wear in their corsets and doubled it on itself and covered it with buckskin, and wore that for six months or more before she came to me.

Mammary Abscess.

Dr. McPheeters.—I recently was called in consultation in a case in which a delicate lady after confinement had a mammary abscess, which had gathered and discharged itself. The doctor in attendance, who is a very cultivated physician and thoroughly posted in his profession, stated that his custom was in all such cases to allow

the abscess when suppuration takes place, to break itself and discharge the pus without being opened. I kindly took issue with him and stated that my practice had always been in those cases as in other forms of abscess, when I was satisfied that there was well digested pus, to relieve it at once and keep it drained: that I thought the results were better from this method of treatment. In this case there was considerable excavation, and in a day or two the opening closed and there was a large accumulation of pus, and on examining it I pulled out two very large strips of fibrous membrane. The only point I wish to call attention to, is as to the propriety of lancing these mammary abscesses, or allowing them to open spontaneously. I would like to ask Dr. Prewitt what his experience has been.

Dr. Prewitt.—I would open them always.

Dr. Papin.—I think it always best to open them and allow the pus to be expelled.

Dr. Prewitt.—The result of the spontaneous opening would be the destruction of a great amount of tissue. In fact if we could open down to the inflammation at the earliest period, even when it was only an accumulation of white blood corpuscles, we would stop the whole thing:

Dr. McPheeters.—In this case the pus having been kept confined the third week, there was set up a septic diarrhea with constant vomiting and great prostration from which the lady came near succumbing.

Dr. Scott.—I would like to ask what we can do to prevent mammary abscess.

Dr. McPheeters.—Strapping the breast and thus maintaining firm pressure is I think, the best treatment in these cases. I have derived great benefit from this method. I would like to ask if any one has seen any good result follow the use of belladonna ointment in these cases?

Dr. Prewitt.—I dont think it amounts to much.

Dr. Scott.—I never derived a bit of benefit from it.

Dr. Prewitt.—I have used pressure very often and it gives great benefit. I recollect some years ago of a lady sending for me to come and strap her breasts. I had strapped them a year or two before and it had given her so much benefit and comfort that when she was confined again she sent for me to strap her breasts.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, February 9th, 1886. Dr. Hermann in the chair.

INJECTIONS INTO EJACULATORY DUCTS (?)

Dr. Todd said that when the question came up some time ago as to the possibility of liquids passing from the urethra into the opening of the ejaculatory ducts, he questioned very much whether that was likely to happen. The urethral canal terminates in the vas deferens which passes through the prostate gland, a very dense structure consisting of gland and muscular tissue and opening into the curious little bag the sinus pocularis in the median line. He showed a specimen in which he had passed a wire through the ejaculatory ducts to the sinus pocularis. It seemed to him that liquids cannot dilate the prostatic urethra except after a long time. These ducts pass through the prostate to such a length and are such mere slits that it occurred to him that it was extremely improbable that liquids would pass into the ejaculatory ducts. Of course such a thing might possibly happen where there was a great deal of pressure, but these passages are closed against the accidental entrance of anything from the urethral canal by a natural valve there. The urine cannot back up except where its passage has been a long time obstructed, and then the ducts gradually open by the distention of the coats of the bladder, then they open directly into the cavity and the urine does pass out some times; but under such circumstances as suggested Dr. Todd thought that liquids would not be likely to pass into the ejaculatory ducts. Dead bodies are very different from living ones: the muscles have a tone in life which we do not find in the dead body where they are lax and the parts are more or less decomposed.

Dr. Fry agreed with Dr. Todd that the parts there make a natural valve except perhaps where there is a chronic inflammatory condition of the mucous membrane.

He did not think it would be possible in the healthy urethra for liquids to pass into the ejaculatory ducts.

TONSILLITIS—ULCERATION(?)

Dr. Todd called attention to a statement by a Chicago physician that of two hundred cases of tonsillitis observed in a given time.

At least seventy-five per cent on the second day presented ulcerated patches on the tonsil. Dr. Todd thought that in simple catarrhal tonsillitis there is an appearance about the mouths of the follicles commonly termed ulceration, which is nothing but an exudation from the follicles of the tonsil. He queried whether this doctor had not mistaken for ulcerated patches what was simply this exudation from the mouths of the follicle. He himself had never seen ulcerated tonsillitis. And it seemed most extraordinary that this gentleman should have met with seventy-five per cent of two hundred cases presenting this ulceration. Acute cases of simple tonsillitis may present a sort of diphtheritic condition, that is, may have a false membrane which may be raised from the tonsil and is merely an excessive secretion from the follicles.

He wouldn't call it diphtheritic, for under very simple treatment that suspicious appearance disappears, leaving a clean tonsil. Some physicians call it diphtheria, but diphtheria is such a terror, that whenever we say a child has diphtheria it is almost equivalent to signing its death warrant. In these cases it is best to be on the safe side and not to give a positive diagnosis until we can verify it.

Dr. Lemen remarked that Dr. Jacobi, in New York, calls them all diphtheria.

Dr. Leete said he had seen cases with exudation on the tonsils, and the softest touch was sufficient to wipe it off, leaving a better defined mouth of the follicle, an isolated point instead of one large patch. Some writers state that they have seen cases that they believe were true diphtheria, in which they could not detect any exudation, at any time, although they examined the patient several times daily. He regards it extravagant to insist upon its being diphtheria without any manifest exudation. The only person, eminent in the profession by common consent, that he had ever heard declare that he called all these cases diphtheria so as to make no mistake, was the late Dr. Meigs. He said that was the easy way and the safe way, that the best treatment applicable to diphtheria would be safe and good for the simplest form of tonsillitis. True diphtheria is almost necessarily fatal, Dr. Leete thinks, in the majority of cases, and it is wrong to call any trouble diphtheritic sore throat unless we know that it is diphtheria. Tonsillitis, no matter of how great severity, is certainly not such a disease as diphtheria.

Dr. Scott said tonsillitis is one thing and diphtheria another, but the diagnosis between this exudative tonsillitis and diphthe-

ria is not always as easy as we might imagine. In diphtheria the membrane is not only upon the surface of the tonsil, but dips down into the substance of it. In the other, there is an exudation which can be wiped off with some ease sometimes, but at others it adheres very closely; and then the sequelæ of diphtheria go a long way to prove the diagnosis. This membranous exudation, or exudative tonsillitis is never followed by sequelæ of any kind. In genuine diphtheria the sequelæ always occur, sometimes in one form and then again in another. He did not agree with Dr. Leete that nearly every case of diphtheria is fatal.

He thinks a large proportion of cases of diphtheria are amenable to treatment. Some very bad cases get well; some cases die very suddenly. Under the mode of treatment now in use it is not near so formidable a disease as it was three or four years ago.

Diphtheria is a contagious disease; the membranous exudation is not inoculable, neither is it a contagious disease. He believes there is a differential diagnosis between membranous croup and genuine diphtheria. Many physicians say that membranous croup and diphtheria are the same thing; but he does not believe it. One case of membranous croup in a family is not followed by another, whereas, if we have one case of diphtheria, unless the rest of the family are separated, they are sure to take the disease.

Dr. W. C. Glasgow had seen ulceration of the tonsils coming from diphtheria, specific ulceration, ulcer in leucoplexia and in aphthous conditions, but in simple catarrhal condititions he had never seen it. He saw an ulcer once which seemed to be simply a process of necrosis without any further affection of the system, but it turned out to be a most malignant case of diphtheria. The more we see of these cases, the less confidence we feel in our ability always to decide. Cases of follicular tonsillitis of apparently the most innocent form which he felt absolutely confident would pass off in a few days without any trouble, had assumed a diphtheritic type and a virulent case of diphtheria followed. He believes the old statement that these follicular exudations can be wiped off, while the diphtheritic membrane involves the tissue itself to be true, especially in regard to the tonsils and the pharynx. It is not true in regard to the nasal cavity and the larynx. But there are certainly cases of these follicular troubles in which we have a secretion from the follicles, extending into the follicles themselves and forming a dense mass, in which the secretion can-

not be wiped away. A sort of ulceration may be caused by the pressure of the tissue of the tonsil by the retained secretion.

The statement which Dr. Glasgow made in regard to the difficulty of diagnosing diphtheria recalls the case of a child which came from the suburbs to the clinic with a most extraordinary throat. Both tonsils were loaded; the whole surface was loaded with a dirty gray mass. He thought that this child was certainly going to die right off of diphtheria. But upon examination closely he found no fever to speak of; and the fauces were not particularly congested, and he could raise the membrane a little by elevating the roughened ragged surface, and there was no bleeding. The tonsils were enlarged and the exudation very considerable. The tonsils were pressed against each other and somewhat down forming a cup. He gave the child simple treatment and at the next clinic day, the appearance had pretty much all vanished.

Dr. Scott asked whether Dr. Glasgow had ever seen any of these bad cases of exudation in which the submaxillary glands were enlarged. In diphtheria they are always and invariably so.

Dr. Glasgow said that according to his experience there are certain people in whom the glands of the neck enlarge with every inflammation of the throat.

Peculiar Action of Calomel.

Dr. Engelmann said that a lady whom he was attending for some uterine difficulty, like so many of those patients with her system weakened by chronic uterine trouble, subject to malarial influences whenever they prevail, and a little bilious at the same time, was given four grains of calomel with six of rhubarb and one of soda. It acted freely four or five times, but within twenty-four hours after taking it the upper portion of the throat, tonsils and pharynx were inflamed and swollen. She had fever; no salivation; no line of the gums, but on the roof of the mouth on one side was a small ulcer. The tongue was a little swollen. This was unquestionably the result of calomel, because last year precisely the same thing occurred. She was a little bilious and yellow. He gave her the calomel unbeknown to her; she was parched and thirsty, and drank a great deal of iced lemonade, and the calomel acted freely. He was sent for on account of the sore throat, and found the same condition now present only aggravated, because they waited a day or two before sending for him. One tonsil especially was inflamed

and sensitive, thickened and red. The pharynx was swollen and painful so that it could be felt externally. There were some symptoms of salivation, a flow of saliva but no line on the gums, a number of patches on the mouth and on the side of the tongue. Had it not been for the saliva he would have considered that she had taken cold and had sore throat on account of it. But this time the occurrence was precisely the same. She came to him with the statement from her physician that she could not bear calomel, and Dr. E. thought he would give it to her very carefully. The dose operated well but not having called her attention to it she drank lemonade, which probably influenced a great deal. The second time however all precautions were taken, and notwithstanding that she had exactly the same condition, only being called in earlier, a wash of alum and chlorate of potash with a little warm milk taken occasionally seemed to slowly relieve her.

Dr. Williamson thought from Dr. Engelmann's history of this case that it was more probable that the sore throat was due to the irritability of the stomach produced by the taking of the calomel. In some peculiar constitutions anything which will at all disorder the stomach will produce sometimes slight and sometimes severe sore throat.

Stated Meeting—February 23, 1886.—DR. LEETE in the Chair.

HEPATIC RESONANCE—ABSCESS.

Dr. Grindon reported the case of a young man about 21 years of age in the City Hospital, when he was one of the assistants there. He had intermittent fever or some such ordinary ailment, and complained of pain in the chest. Percussion on the right side found the ordinary resonance down to the usual line of the liver, and a little further down, on what should be the centre of the area of hepatic dulness there was a spot which measured perhaps three inches from side to side and two inches up and down, that was tympanitic like percussing over the stomach distended with gas. Around this space there was liver dulness in every direction. On a second examination that area of resonance was not there. There was the ordinary hepatic dulness everywhere. The patient turned over on his left side, and again the doctor found this resonance. When he turned on his left side and remained there

awhile they could get this resonance, and when he turned on his right side this would disappear. By turning him from the right to the left side and percussing immediately there were different notes produced. The patient gave this history: He had had dysentery some months before, and said that one day he had intense pain in the right shoulder and right hypogastrium, with a chill and so on; and one day he passed *per anum* a quantity of matter. The inference was that there was a deep abscess in the liver; which opened into the stomach and the walls of which had cicatrized and left an opening into the stomach, so that when he was turned on the right side fluid from the stomach would run into this cavity, and when turned on the left side this fluid would run out and the area of tympanitic resonance would return.

Pneumonia—Pulmonary Abscess.

Dr. Eversole said that in January a year ago he saw a patient with pneumonia of the lower left lung which progressed in the ordinary course for about three weeks, when he commenced to spit up a great deal of blood. He would at times spit up a pint of blood, then a great deal of pus, and this pus was very offensive. There would be an accumulation sometimes for a week, and he would apparently gain strength, and the folks imagined he was going to get well right away. Then he spit up pus again, and there was evidently an emptying of the cavity. Another physician who was called in consultation, said the man had consumption. Dr. E. still contended that the patient did not have consumption. Some of the sputa were examined by a gentleman present who reported that there were blood cells, pus cells and lung tissue, epithelium from the bronchial mucous membrane, but no tubercular bacilli. The patient had at least half a dozen of these attacks, and, of course, when the people saw him spitting blood, they said he had consumption. The doctor gave him hypophosphites and all the nourishment that he would take, and Dr. Robinson who saw him in consultation suggested the use of an inhaler so as to get a disinfectant down into this cavity. He made a solution of iodoform, carbolic acid, and a little turpentine, and it seemed as if the man commenced to improve almost at once from the use of this disinfectant. This man got well and is now working in an iron foundry with no indication of any kind of trouble about the lung except that there is a depression in the posterior part of the chest where that abscess

was; there is no other physical sign in the chest. The fact of not finding tubercular bacilli in that case was important as a matter of diagnosis. Fluid extract of ergot in about one dram doses repeated hourly controlled the hemorrhages.

Dr. Dixon said in regard to the case which Dr. Grindon reported of supposed hepatic abscess, that if an abscess breaks into the stomach the tendency is to vomit the matter; he would vomit large quantities of pus instead of passing it from the bowels. If the abscess opened into the alimentary tract at all, it was probably lower down than the stomach.

Dr. Homan suggested that possibly pus might discharge through one of the ducts of the liver into the intestine.

Dr. Leete believes that there are conditions of the lung which are relieved by free bleeding as observed in this case. He never used ergot to check bleeding, but had often used, with most satisfactory results, large doses of gallic acid, which acted very promptly. In some cases with women it might be hazardous to use ergot in full doses.

Dr. Eversole had used gallic acid, and it acts very promptly in some cases, but used ergot in this case, as the condition was very low, he could not afford to lose any more blood; he was almost pulseless sometimes, and he had to stimulate him.

Dr. Leete would not be understood as intimating that it was desirable in such a case to allow the bleeding to go on, only that there are conditions of the lung in which a similar loss of blood is positive beneficial, but a few mouthfuls of blood will very likely answer the purpose. He asked if the lung seems to be now of the normal dimensions.

Dr. Eversole said there might be some contraction from the cicatrix there, but had never been able to detect it.

Dr. Fry read a paper on

INTERNAL DERANGEMENT OF THE KNEE JOINT. (VID. p. 391).

Dr. Homan asked if Dr. Fry held that this occurrence is possible in health.

Dr. Fry said it might occur where at any rate there had been no evidence at all of disease.

Dr. Steele's experience was that where there had been inflammation of the joint and the cartilages had been thickened, and the ligaments holding those cartilages had been weakened, this accident

would be quite apt to occur, and he thought such changes had taken place in the joint when we have this accident or lesion. It is very rare indeed, although by violence the semilunar cartilages may be driven out of place at the lower end of the femur, but in these cases the cartilage can be felt projecting beyond the edge of the tibia so that it can be recognized, and then by extension or flexion and rotation of the leg upon the thigh, it may be reduced, sometimes suddenly, almost with a snap; at other times it goes back very slowly indeed, and leather or rubber bandages must be applied to slowly press it back into place. If the accident has once occurred, it is very apt to occur again. As Dr. Fry suggested, the semilunar cartilages are not in as close contact with the tuberosities of the femur in flexion as in extension, because the tuberosities have not the same curve in the whole extent. Unless the lesion in Dr. Fry's case was what he thinks it, i. e., a partial luxation of the semilunar cartilages, it is hard to understand what it could have been; he would have detected foreign bodies, if present, and yet it is rather strange that this cartilage with its close adherence to the tibia can be displaced, unless by extreme violence; and yet they tell us that a trip, the leg being rotated outward, will throw the cartilage out and cause the lesion. This is not a dislocation of the semilunar cartilage, but a partial displacement of the femur upon the tibia.

Dr. Homan asked what form of inflammation most predisposes to this trouble ?

Dr. Steele thought that an ordinary synovitis, if it goes on for any length of time, might have this effect, causing hypertrophy of the cartilage and disorganization and weakening of the ligaments. He did not think rheumatic inflammation would have the same effect.

Dr. Eversole referred to a case that Dr. Lankford presented to his class about ten years ago, a boy who was supposed to have no lateral ligaments, or only very slightly developed, because dislocation of the tibia upon the femur occurred very readily. That young man has been very active, takes a great deal of exercise, hunts and rows and takes all such exercise, yet he has never had such an accident as that. He may not have any semilunar cartilages.

Dr. Fry said that in flexion the cavity formed by the semilunar cartilage is deepened. If we notice the condyles of the femur, the posterior portion that is in contact with the tuberosity when the

leg is flexed, we see that it is not only more rounded in its vertical but in its lateral diameter, the articular surfaces running further onto the sides of the condyle. Now why does that articular surface extend to the side, or why is there evidence of there having been an articular surface there covered with cartilage? Bryant, in his surgery, says that the external semilunar cartilage is more apt to be dislocated than the internal. Perhaps he has assumed this because it is so much more movable than the internal one. Its extremities are closer and it is more circular in form, and besides that it is not so intimately attached to the lateral ligaments as the internal semilunar cartilage. When Dr. Fry first began to examine the authorities on this subject, he was of the opinion that if the cartilage was fairly movable, it would be more easily dislocated than if it was firm in its position. But he believed that the contrary is the fact, that if the cartilage is movable the more readily it follows the changing positions of the femur. In regard to the deformity being discovered on account of the projection of the cartilage anteriorly to the arch of the tuberosity, the majority of authorities seem to think that it is possible that this cartilage may be dislocated without apparent deformity. One point noticed in his paper, namely, the site of tenderness seems to him to be a point of some significance, because we would be more apt to find it in the locality where the cartilage is bruised more between the bones, namely, around the margin of the tuberosity of the femur.

Dr. Homan asked if the fact that the internal cartilage is more firmly fixed would not rather show that a partial displacement of the tibia upon the femur itself existed?

Dr. Fry thought it would; and yet that with such displacement the rotation would have to be very considerable for the cartilage to remain in position and the femur get behind it. He didn't believe it would be accomplished without wrenching or straining the ligaments to some extent.

Dr. Leete asked if the literature on this subject showed that this disease had been observed at all except in such cases as had suffered either violence to the affected joint or what is commonly called effusion into the joint, that is, increase of the synovial liquid.

Dr. Fry said the opinion seemed to be that it might happen.

The literature shows that it has happened where there is no history of any previous trouble to the joint.

Dr. Leete asked if in the normal condition of the joint there is not

a little freedom in the movement of the parts, and on these cartileges two free surfaces so that between the under surface and the head of the tibia there is a thin layer of synovia.

Dr. Fry said that the upper and under surfaces are covered with synovial membranes, and they move freely, especially the outer one, on the tuberosity of the tibia. The semi-lunar cartilages are so attached that you can run a dissecting knife under them and lift them up from the surface of the tibia all the way round, even the outer margin to a slight extent.

Iodoform.

Dr. Tuholske said that last Sunday he was called in consultation, to see a patient who had a metastatic abscess in the shoulder. He determined to open and wash it out, and to drain it and then apply an external dressing, using iodoform. He suggested to the gentleman with whom he was in consultation, to get the patient in a little better condition, and that they would come the next day and open the abscees and wash it out with corrosive sublimate and dress it. The doctor wrote a prescription for twenty grains of quinine put into two powders, one to be taken that evening and one in the morning, and he also prescribed two drams of iodoform to be used the next day as an external application. They found the patient in quite a comfortable condition, laid open the abscess, drained it and washed it out, and then asked for the iodoform and there was none to be found. Upon looking at the powders it was found that the woman had taken ten grains of quinine at night and two drams of iodoform in the morning instead of the other ten grains of quinine. She was still in a very good condition and was feeling very comfortable indeed. He was wondering whether there might be a mistake about it, but she had the box there in which the iodoform had been contained, and there was that characteristic and persistent odor of iodoform. She remarked when she took it, that that was the worst smelling stuff she ever had taken. There was no effect from the iodoform except that four or five hours after she had taken it she vomited, not copiously at all. He could not learn whether the iodoform had been vomited or not. Now a dose of iodoform internally is about a grain or two once or twice a day, but she had taken two drams. Very little of it probably was absorbed, as it does not absorb readily in that way, and probably it was lying on the mucous membrane of the stomach without pro-

ducing any other effect than we might have from the presence of a foreign body or an irritant; probably absorption was going on very slowly. Then thinking that probably the iodoform was still contained in the bowels somewhere, in the stomach or bowels, he thought it might be well to give something that would carry it off, and it was suggested to give her a dose of oil; but if iodoform is absorbed it is most readily in the shape of an oleaginous mixture, so that he thought it was perhaps best to let her alone and there was no bad effect at all.

Dr. Leete asked if he used iodoform on the surface of the abscess?

Dr. Tuholske said he did put on a very little. The impression of a good many people is that iodoform should be put on in large quantities. He had seen it used so in the City Hospital, but does not think this the proper way to use it. It does not require a large quantity, and in fact large quantities are perfectly useless as they cannot be absorbed.

Dr. Homan asked if Dr. Tuholske had had any experience with what is said to be a substitute for iodoform, iodol.

Dr. Tuholske said that in the last week or two he had had a little experience with that. He noticed an item in the *Berlin Wochenschrift* a week or two weeks ago in which the merits of iodol were largely discussed, claiming for iodol pretty much all that is claimed for iodoform. It is said to contain over ninety per cent, some claim 95 per cent of iodine. It is claimed that it will serve as a substitute for iodoform in every particular, and there is a modification of the smell. It does not look like iodoform. It looks very much like powdered ipecac and has no smell at all. He had dressed only a few wounds with it, using altogether about an ounce, and probably it had done as well as iodoform. Iodoform he regards as a very important remedy. Some claim that a subnitrate of bismuth, oxide of zinc and so on, are just as useful, and some even mix these powders with the iodoform; and, after all, it is possible that a good deal is due to the fact of its being a powder and forming a mechanical covering for the wound, keeping it dry; so that the iodol itself may be as good as iodoform, if not better, because it is a very soft powder as soft as the softest iodoform crystals that you can get: such a powder, is not apt to be an irritant. The disadvantage of iodoform is the miserable smell that is attached to it, and if we can get a remedy which is quite as effectual without the smell, it will

be such preferable. A great many antiseptics have been in use since iodoform was introduced and some of them certainly seem to be very valuable such as bichloride of mercury. But if he were put to the use of one single antiseptic drug he would take iodoform as having more valuable properties than all the others.

Dr. Leete asked whether, in view of the effects of the bichloride of mercury as a germicide, soft cotton thoroughly cleansed, absorbent cotton, which had been treated thoroughly with a suitable solution of bichloride of mercury and formed into sheets of variable thickness to be used in different wounds, would not serve all the requirements of the germicide dressing instead of the stinking powder iodoform?

Dr. Tuholske said: It is stinking, there is no doubt about that; and iodoform when exposed to the air will out-smell any other substance which can be produced. But iodoform is used to a considerable extent in wounds where you could not put the cotton, e. g., in the abdominal cavity, upon the peritoneum and to the pedicle in case of the removal of tumors then droping the pedicle in the culde-sac of Douglas. Then as far as the external dressing is concerned, the cotton itself, if applied upon a surface utterly free from germs, would be enough of a protection: still, if we put the bichloride of mercury there is an additional protection, and it remains in position. As long as the wound remains dry it would be all right, but neither carbolic acid nor bichloride of mercury can compete at all with iodoform in the permanency of the application; and if the dressing be continued for some time and pus comes from the wound surface and gets into the cotton, it would not be sufficient protection. Carbolic acid loses its value after a time. Iodoform, if you place a certain quantity there, is very slowly aborbed; just so much will be changed at a time. There have been reported cases of death from iodoform but they are wonderfully few, while cases have been plentifully reported of death from bichloride of mercury. Now we don't know exactly how much mercury we are putting into a patient. Where we put it into wounds, it is changed as quick as it comes in contact with albumen, and we do not know how much will be absorbed, how much will be destroyed. Then some patients are very susceptible to the influence of mercury, and salivation is reported to have occurred in many cases. It is certainly more poisonous than iodoform and does not last as long as an external dressing and is not so readily applied. Take the

simple ordinary wound, if you wish to do so, and the patient can go about.

Dr. Glasgow has been using iodol for some time, in hope that it would be a substitute for iodoform of which he uses a great deal upon mucous surfaces, and which it would be very difficult to dispense with. He has not procured any definite results in the cases in which iodol has been used, which have been those of a purulent nature, but the amount of pus has been diminished, perhaps as satisfactory as he could expect from using it the same length of time, about ten days.

Stated Meeting, March 9, 1886.—Dr. F. R. Fry in the chair.

Ulcer of Stomach.

Dr. Prewitt presented two specimens of ulcer of the stomach. One of the patients died from inanition and hemorrhage, the other from perforation of the stomach. About eighteen months ago the first patient had a very violent hemorrhage, and Dr. Prewitt then told him that he was suffering from ulcer of the stomach. He did not see him again until a month or six weeks ago. He was then very much emaciated. He had been home for months suffering with symptoms of ulcer of the stomach, vomiting his food and so on. He had suffered for a long time with symptoms of indigestion, with exacerbation and then amelioration of the symptoms. He would pursue a course of treatment for a while, but as soon as he got a little better he would indulge again. About six weeks before his death he suffered with vomiting, and could not retain anything on his stomach, milk or anything else. But at the end of about a week or ten days, when he was almost famished and exhausted, he got hold of a young squirrel, had it boiled and ate the whole of it. That was followed by severe hemorrhage, never bright but always dark grumous blood. He had repeated hemorrhage after that. Sometimes he would spit a little blood for three or four days, and sometimes a large hemorrhage would occur. This condition made Dr. Prewitt think that possibly he might be mistaken in the diagnosis, and that after all it might be cancer of the stomach, yet the other conditions did not indicate this. He died from inanition, being unable to take even the simplest food. He lived for two or three weeks on enemata. On post-mortem examination there was found

upon the lesser curvature of the stomach, two or three inches from the pylorus, an ulcer as large as a silver dollar which had perforated all the coats of the stomach except the peritoneum, and another ulcer which had entirely removed the epithelial coat or else had healed over.

The second patient also had been suffering for three or four months with pain, etc., in his stomach. But he had been a dyspeptic; he had suffered a great deal from "heart-burn" for years, but only the last three or four months suffered much pain. He had never had hemorrhage from the stomach but had suffered great pain, and he was becoming emaciated. He was an old man of 65 years, presumably more likely to have a cancer than an ulcer; but his general good appearance, the lack of all indication of cachexy, etc., indicated that it was not cancer of the stomach but ulcer of the stomach. A rigid milk diet modified pain to a certain extent, but he still suffered some until the night before the last when he was taken with sudden pain and felt as if something seemed to drop down from the stomach into the bowel, and from that time suffered great pain. Sunday night he was taken with this severe pain. On Monday during the day there was extreme fever with coldness of the extremities. In fact he was in a state of collapse; the ulcer had perforated his stomach. A post-mortem examination verified the diagnosis. He had vomited before death dark grumous material, altered, yet unquestionably blood. The ulcer had been situated near the pyloric extremity of the stomach upon and perhaps a little in front of the lesser curvature. There were very considerable recent adhesions between the pyloric extremity and the liver. In fact, nature had endeavored to plug up with lymph the opening which had been made by the ulcer. The pylorus was greatly thickened, as is not unfrequently the case. Some years ago, Dr. Prewitt said, he met with a case of ulcer of the stomach where the walls were at least two inches thick in some places with indurated fibrous like masses, so that he was in doubt whether there was not cancer. In the first specimen the ulcer had opened a blood-vessel. The appearance of the blood to a certain extent showed that it was venous, that it oozed out very slowly at times, and the gastric juices had acted upon it in such a way as to produce very great changes in it. Had it been an artery as large as that, there would have been a rapid gush of blood into the stomach filling it with blood.

VESICAL CALCULUS—LITHOTOMY.

Dr. Prewitt also exhibited a stone removed two days before from a boy six years old. The boy had been suffering with this for a considerable length of time. On examining the rectum and prostate, Dr. Prewitt was struck with the extremely small size of the prostate gland, not much larger than a pea. He was very cautious indeed about cutting about the prostate gland, and had to accomplish the removal of the stone mostly by rapid dilatation with the finger. It was more than an inch in diameter in every direction, and he had considerable difficulty in pulling it through. There was no water in the bladder. The stone was up behind the pubes, and resisted extraction so that he had to pass in his finger and reach it and bring it down. It is a large stone to be removed from a child only six years of age.

Dr. Lemen read a paper on

JOINT DISEASES. (Vid p. 396.)

Dr. Prewitt said that the old surgeons were disposed to look upon these cases as the result of traumatism, since it was found in the large proportion of cases that that proved to be their origin. Now opinions have shifted down to the belief that they are scrofulous, tubercular, in fact due to the bacillus tuberculosis. A patient under his care two years ago had sprained or hurt her ankle; she continued to walk about on it, and it gradually became more painful, and the soreness and swelling increased, and there were sinuses that led down to the joint. All efforts to save the foot proved futile, and it was necessary to cut it off. The woman began to have high fever and for days the temperature was 104°. It was something like a yesr ago, perhaps, and the public panic in regard to blood poisoning was then very general. She became fearful and apprehensive of blood poisoning and insisted on having the leg taken off, and it was thought it was the best that could be done. There was a time when he would not have thought this due to bacilli; but in that joint was precisely what we find in other cases that are regarded as scrofulous joints. Pathologists tell us that bacilli are found in this material so that it is concluded that the bacillus causes the trouble. The woman is not a tubercular subject but a perfect healthy woman to-day. Her health rapidly improved as soon as the leg was taken off and since then there has been no evidence of the presence of bacilli about her. It seemed that when

the leg was cut off all the bacilli were removed. He would not say that this was not the origin of the trouble, but was a little at a loss to understand exactly how it happened. He had treated cases which recovered without loss of the joint. One was that of a little boy some four or five years of age, who had this same kind of inflammation of the elbow joint with a sinus leading down into the joint, into which he could pass a probe. He put the arm in a plaster splint leaving a fenestrum. Subsequently an abscess formed which was washed out and dressed carefully and constitutional treatment was given, and the boy recovered with a very useful arm. What became of the bacilli in this case? It seems that they are active under certain conditions only, and if they appear only when that condition is present, the question is whether they produce the condition or are the result of it. Dr. Prewitt don't believe that it has been demonstrated that they are the active agencies in producing these conditions.

Gunshot Wound of Head.

Dr. Todd said that a negro man, a roustabout, came to the clinic some two weeks ago, who, in a gambling quarrel, had received two pistol shots, the pistol being fired so close to the back of his head that his hair was singed. One ball penetrated the back of the neck upon the left side, but what became of the bullet he did not know. The wound healed up externally. The other bullet went through the cartilage of the ear, struck the tympanic cavity and then divided into several pieces; one passing into the mouth and wounding the tongue, and others passing in other directions. He was suffering very much about the mouth and tongue, and Dr. Todd urged him to visit Dr. Prewitt's clinic and see what was the matter. He subsequently stated that Dr. Prewitt had found a collection of pus in the tongue, had lanced it and had relieved him, although the jaw was still stiff and he couldn't move it freely.

Dr. Fry said that this case recalled a case which he saw at the City Hospital, where a patient had evidently attempted to commit suicide. He had fired a pistol in close contact with his face; there were powder marks on his brow, and the bullet must have been as large as the end of the little finger. This had struck the frontal bone, and had denuded a large portion of it of the periosteum. The bullet split in two parts; one part was found at the time and the other was found up in the ceiling sometime afterwards. The bulle

seemed to have struck him pretty squarely on the forehead from the manner in which it was flattened out and was deflected to one side and lodged in the outer portion of the brow.

Dr. Todd said the remarkable point in regard to this case was that there was an almost direct impinging of the bullet upon the wall of labyrinth, and one would naturally expect that there would have been meningitis or some loss of equilibrium. Certainly the whole labyrinth must have been completely disorganized by the concussion, if by no other means, and yet the man showed no serious lesion whatever.

Dr. Grindon related a case in which a man, after having tried to murder his wife by shooting her in the back of the neck, the bullets lodging in the muscles of the neck, shot himself. The pistol was what is known as the British bull-dog, with quite a large bullet. He shot himself below and a little to the right of the occipital protuberance, at a point about midway on a line drawn from the mastoid to the occipital prominence. When he was brought to the Dispensary there was an escape of blood and some brain matter on his shoulder. He was quite conscious, and the bullet of course was somewhere in the fellow's head, just where the doctor did not know and didn't like to feel for it. He was sent to the hospital where the bullet was slipped out, and the fellow made a very good recovery.

DIPHTHERIA TRACHEOTOMY.

Dr. Prewitt related the following: Some three weeks ago he was called to see a child with diphtheria, a membrane extending over the larynx and tonsils. The child was almost suffocating from obstruction of the larynx. He performed tracheotomy. The child recovered from the diphtheria, but had paralysis of the muscles of the throat and swallowed with great difficulty. When the child had begun to be greedy to eat, it insisted upon having things which were upon the table, and they had allowed it to have pie and apple sauce perhaps, and it succeeded in swallowing it tolerably well, but threw it up again and some solids passed out of the opening in the throat. As the child was not getting enough nourishment, he passed a catheter into the stomach and introduced food through it, probably two or three ounces of milk, and told them that with that much milk it certainly wasn't going to starve. He didn't attempt to introduce it again, but the next day the child was not so well; it vomited some, and the bowels began to run off, which they natu-

rally attributed to the introduction of the catheter into the stomach. However, the child had vomited before. It began to take nourishment again in a few days, but when it takes milk you can see it running down the trachea until it seems almost to fill it up, then the child will cough it out. It gives it no discomfort especially, but it does not get as much nourishment from the milk as it ought. The tube was taken out at one time but it was necessary to replace it. To-day he had plugged the larynx from below with a piece of soft sponge having applied cocaine to benumb the parts. It then took the milk very well. It swallowed a greater portion of what was given it, at least two ounces of milk. The troublesome question now is how to nourish the child. The operation has been over two weeks and the child cannot breathe through the larynx, and it struggles and suffocates if an attempt is made to close the opening. The wound looks pretty healthy and there are healthy granulations going on and the child is doing very well except in the particulars mentioned.

Stated Meeting, March 23, 1886, Dr. Bremer in the chair.

Hysteria.

Dr. Bremer reported the following case. A girl about 23 years of years; history, individual and family, good in every respect, and with no neurotic tendency; has never evinced a tendency to hysteria, and except malarial fever, has always been exempt from disease up to about two and a half years ago, when she conceived an idea that she was altogether too tall, that her feet and hands were enormous and always growing. At the same time she complained of a continual sour stomach. Whether she ate anything or not made no difference. This continued for some time when she became melancholic, considered herself an outcast from humanity, found herself abnormal in every respect, and commenced comparing herself with other people; and found great delight in saying that she was much taller than others. She compared herself especially with her mother, and, although in reality smaller than her mother, she thought she was taller by several inches. In order to correct this excessive growth she assumed a stooping walk, tried to make herself smaller by every effort, and would walk with her knees bent. After she had continued that for some time, perhaps several months, she found that in reality she could not

straighten her back; there was a curvature of the spine about the last cervical and first dorsal vertebræ. At the same time the muscles of the back and all the muscles concerned in respiration became atrophied. Seeing and realizing her precarious condition she began gymnastic exercises, and in one of her attempts to straighten her back by hanging herself up from the outer edge of the door, she fell down utterly powerless, and from that time on she didn't undertake to straighten her back any more. So things went on for a years or so; her whole aspect was that of a case of progressive muscular atrophy. When Dr. B. saw her about six months ago, all the muscles of the back were in an advanced state of atrophy. She imagined that her spine was about three inches too long, and insisted on having a portion taken out, not less than three inches. She said she had measured her spine and found it was just three inches too long. Dr. Bremer advised isolation in a hospital where she would be removed from the family, because there was certainly an hysterical element and the parents had no idea how to treat such a case. They would upbraid her for her stooping walk and advise her to keep herself straight; this only made her worse. They finally consented that he should take her to the hospital, and there an operation was performed. She was told that about three inches of the spinal column would be taken out. She was put under chloroform, and a very deep incision was made; some bones were kept in readiness and covered with blood, and presented quite a horrible spectacle. When she came from under the chloroform, upon seeing those bones she was highly pleased with the success of the operation. Everything went well until about two weeks after the operation, when she measured her spine again and found it too long by just three inches; then of course there were reproaches to the physicians, and everything went from bad to worse. The muscular atrophy, however, did not progress, and by and by her mind improved. She lost the foolish ideas about the enormous size of her hands and feet, and about the abnormal condition of the body, and commenced to straighten herself. Electricity was applied, both the galvanic current and faradization. Of course she had had other medicines, such as iron, quinine and cod liver oil; still at the end of about four months after the operation, she was in about the same condition that she had been in before. The question in this case is whether it is possible for a perversion of will power to have such an influence upon the anterior horns of the spinal cord that

atrophy of the muscles can take place? Is it possible that a diseased mind can produce in certain portions of the body an organic disease? Tuke admits that such a thing is possible, that muscular atrophy may take place by the weakened condition of the ganglionic cells of the anterior horns without any organic disease whatever. Of course it is very difficult to come to a decided opinion on a point like this as long as there is no post-mortem. Dr. Bremer inclines to look upon this as a case of chronic inflammation of the anterior horns; that there was never any degenerative reaction of the muscle, however, would speak against this theory, and would point rather to progressive muscular atrophy in which this particular morbid phenomenon is absent. This young woman at first began shaking her head; then she had a very obstinate hiccough, then the muscular atrophy, beginning at the shoulders and traveling downwards, involved the respiratory muscles and at a later stage of the disease there was trouble with the kidneys. She did not urinate, not because she could not empty her bladder, but there was a perfect want of action of the kidneys. So the morbid process traveled downwards, and in all probability it was a progressive chronic inflammatory process of the anterior horns. Progressive muscular atrophy has this peculiarity, that it commences at some peripheral point, especially in the little finger in the interossei muscles, extends somewhat, and jumps neighboring muscles, sometimes making a very great jump. For instance, it will go from the thumb to the shoulder, and from there perhaps it attacks the muscles covering the wrist. Then again with progressive muscular atrophy we have involuntary contractions. All this was absent, and hence, in spite of the absence of the degenerative re-action, he concluded that it was a case of inflammation of the anterior horns.

Dr. Hardaway read a paper on

Artificial Eruptions. (Vid. p. 385.)

Dr. Moore reported a case which occurred in his practice a short time ago somewhat similar to the one reported by Dr. Hardaway in which the aniline covering of a new comfort had produced spots on a patient from the size of half a pea to that of a dollar all over the body generally in the person of a young gentlemen whom he had been treating some weeks before for secondary syphilis. He was sent for to see this young gentleman in regard to an inflammation on the instep over the foot, he having worn a tight shoe for several

hours in the evening which produced this inflammatory action. When he first saw the foot he told him he was of opinion that it was going to suppurate from the present appearance, and would have to be opened, etc. He said it could not be that, because these spots were coming out all over him, and showed the doctor some spots along the calf of the leg. The other leg was in just about the same condition. Then he said when he was shaving that morning upon putting his hand to his chin there appeared a spot which he had never seen before. This spot was not the color of blood. He was a healthy, well-nourished young man except for the syphilis. He then showed several little specks and spots about the hands, one or two on the ear, etc. On the bed was a new comforter of exactly the same color as the spots. In order to convince the young man that this was the source of the discoloration he took the comfort and produced some similar spots upon his own hand from it.

Lomb Prize Essays.—Mr. Henry Lomb, of Rochester, N. Y., has offered the sum of seventeen hundred and fifty dollars in prizes on sanitary subjects, to be awarded under the auspices of the American Public Health Association. The subjects are as follows:

I. *The Sanitary Conditions and Necessities of School Houses and School Life.* One prize $500.

II. *The Preventable Causes of Disease, Injury and Death in American Manufactories and Work Shops, and the best Means and Appliances for Preventing and Avoiding Them.* One prize, $500.

III. *Plans for Dwelling Houses.*

(a). A plan for a dwelling house not to exceed in cost, exclusive of cellar, eight hundred dollars. Prizes: First, $200; second, $100; third, $50; fourth $25.

(b.) A plan for a dwelling house not to exceed in cost, including cellar; sixteen hundred dollars. Prizes same as for (a).

Accommodations to be provided for families consisting of five persons.

Particulars as to the essays, specifications as to plans for dwelling houses, and conditions as to the competition, may be obtained by addressing Dr. Irving Watson, Sec'y Am. Pub. Health Association, Concord, N. H.

FOREIGN CORRESPONDENCE.

LONDON LETTER.

Examination Hall of Colleges of Physicians and Surgeons.—Combination of the Colleges.—Ceremonies at Laying Foundation Stone.—Addresses.—Plea of Insanity.—The "Lancet."

London, April, 1886.

On the 24th of March the Queen laid the foundation stone of a new hall for examinations, to be erected by the combined Colleges of Physicians and Surgeons. The site of the new building is on the Thames embankment. The Royal College of Physicians of London, and the Royal College of Surgeons of England, have lately formed themselves into a board for examination purposes, and now give a joint diploma. The action of Her Majesty in kindly consenting to lay the first stone of this purely medical institution has been received with great satisfaction by the medical profession in this country.

The combination of the two medical colleges in London forms the commencement of a new era in the history of the medical corporations. In former times the physicians and surgeons were at variance, and frequent quarrels arose between them. In the time of Queen Elizabeth a most notable difficulty arose between the physicians and surgeons, which took the combined wisdom of the Bishop of London, the Lord Mayor, and the Master of the Rolls, to decide. The question was "whether a surgeon might give inward remedies in the sciatica, pox, or any kind of ulcer or wound." Dr. Caius, the then President of the College of Physicians, was cited to appear and "plead for his college;" this he did so successfully that it was decided by the above-named commissioners appointed to try the case, that it was unlawful for the surgeons to administer medicines in the complaints mentioned.

The surgeons were at that time combined as a city company with

the barbers. Henry VIII. granted them a charter under the style and title of "The Master and Commonality of Barbers and Surgeons." They remained together until 1745 when the surgeons established a college of their own in the Old Bailey. In 1800 they removed to their present building in Lincoln's Inn Fields, which is so well known to our American brethren who visit this country, as the home of the world-renowed Hunterian Museum.

The College of Physicians was founded by Linacre, who was one of the physicians to Henry VIII. It was also first established within the city of London, in Knightrider street. After the Civil War the college was on the point of being sold as "church property" but was rescued by a member, Dr. Baldwin Harney, who became its purchaser. It was burnt down during the great fire of London in 1666, and rebuilt in Warwick Land, close to St. Paul's Cathedral. In 1814 the College obtained power from the Legislature to hold its meetings within the liberties of Westminster, and in 1820, through the exertions of Sir Henry Halford, the present buildings of the College of Physicians were erected in Pall Mall. The College can boast among the list of its Fellows the names of many whom the entire civilized world hold in honor, such as CAIUS, the founder of the college that bears his name at Cambridge; HARVEY, SIR THOS. BROWNE, SYDENHAM, SIR HANS SLOANE, RADCLIFFE, who founded the Infirmary and Library at Oxford, PEPYS, WATSON, HOLLAND, and ARNOTT. The roll of the College of Physicians also includes the Duke of Montagu, admitted in 1717, and the Duke of Richmond, admitted in 1729.

The ceremony of the 24th of last month is perhaps one of the most memorable that has occurred in the history of medicine in this country during the present century. Great preparations were made by the medical corporations. A large and substantial marque was erected capable of holding 1000 persons. Only about forty ladies were present, the remainder of the huge concourse was composed almost entirely of medical, men, and almost all those who held university degrees appeared in their academic robes and hoods. The University of Cambridge was represented by its M. D.'s in scarlet gowns, with scarlet hoods lined with pink silk, and soft velvet hats with rims surrounded by gold lace. The Oxford M. D.'s in an almost similar costume with the exception of the hats, their head gear being the ordinary college cap. The M. D.'s of Edinburgh wore scarlet and what are called John Knox hats. The M

D.'s of London wore scarlet with hoods lined with purple silk. The holders of inferior degrees wore black gowns with hoods of various colors according to the university to which they belonged. The court physicians and surgeons were in court dress in addition to their academic costume. The army surgeons were in full regimentals. In fact, a more gorgeous assemblage has seldom been seen and certainly not in relation with medicine. The Queen's guards and the household troops were on duty, and a guard of honor was also formed by the members of the Volunteer Medical Staff Corps, which is chiefly composed of students of the metropolitan hospitals. Two companies also of the Artist Corps which are chiefly composed of medical students formed part of the guard of honor. Several bands were in attendance, and the band of the Scots Guards played a selection of music before the arrival of the Queen. The centre of the marquee was most beautifully decorated with ferns, exotic plants, and evergreens. Over the stone, which was supported by a massive crank and pulley, was erected a tastefully decorated canopy which also covered a raised dais on which were placed the chairs for the Royal party, and on which the presentations to the Queen were made. The first to arrive was the President of the Royal College of Surgeons in a gorgeous red and and gold uniform, being the state dress of his office, supported by the two Vice-Presidents. They formed a procession which entered in the following order:

An Usher with the College Staff.

The Assistant-Secretary, Frederick Greville Hallett, Esq., bearing the Charter and By-laws of the College.

The four Senior Members of the Council: Sir James Paget, Bart., F. R. C. S., D. C. L. Oxon., LL. D. Cantab.; Sir T. Spencer Wells, Bart., F. R. C. S.; John Marshall, Esq., F. R. C. S., F. R. S., LL. D.; Edward Lund, Esq.; F. R. C. S.

The Secretary, Edward Trimmer, Esq., M. A., bearing the College Seal.

The Conservator of the Hunterian Museum, Prof. Chas. Stewart.

The Porter, carrying the Mace.

The Presdient of the Royal College of Surgeons of England, William Scovell Savory, Esq., M. B. Lond. F. R. C. S., F. R. S.

The Senior Vice-President, John Wood, Esq., F. R. C. S., F. R. S.

The Junior Vice-President, Henry Power, Esq., M. B., Lond., F. R. C. S.

Their insignia of office were deposited on a table prepared for them.

Shortly afterwards the President and the two Vice-Presidents of the Royal College of Physicians of London, and its officials, entered in the following order.

The Porter of the College, in a gorgeous red livery carrying his Staff.

The Assistant Registrar, William Henry Allchin, Esq., M. B. Lond., F. R. C. P., bearing the Charter and Statutes of the College, bound in crimsom velvet adorned with silver. (This copy was presented by Dr. Caius, President of the College in 1555.)

The four Censors, Samuel Osborne Habershon, Esq., M. D. Lond., F. R. C. P.; Wm. Henry Stone, Esq., M. B., Oxon., F. R. C. P.; James Edward Pollock, Esq., M. D., Aberd., F. R. C. P.; Wm. Howship Dickinson, Esq., M. D., Cantab., F. R. C. P.

The Treasurer, Dyce Duckworth, Esq., M. D., Edin., F. R. C. P., bearing the Keys of the Chest.

The Registrar, Sir Henry Alfred Pitman, M. D., Cantab., F. R. C. P., bearing the Seal of the Corporation.

The Beadle, Mr. William Gurner, carrying the Mace.

The President of the Royal College of Physicians of London, Sir Wm. Jenner, Bart., K. C. B., M. D. Lond., F. R. C. P., D. C. L., Oxon., LL. D., Cantab. and Edin., F. R. S.

The Senior Vice-President, Edmund Lloyd Birkett, Esq., M. D., Cantab., F. R. C. P.

The Junior Vice-President, John Wm. Ogle, Esq., M. D., Oxon., F. R. C. P.

Her Majesty's arrival was preceeded by that of the Prince of Wales, in the full uniform of a Field Marshal, wearing the Ribbon of the Order of the Garter, accompanied by the Princess Louise, the Duke of Cambridge, the Marquis of Lorne, the Duke of Abercorn, and the Earl of Gosford. The Queen was received at the entrance of the pavilion by the Presidents of the Colleges and Physicians and Surgeons, and Chancellor of the Duchy of Lancaster, the bands struck up, the national anthem and the whole assembly rose and cheered her Majesty lustily. The Queen smilingly acknowledged her reception. She appeared in excellent health, and was accompanied by the Princess Beatrice and Princess Christian, the Duke of Connaught, Prince Christian, and Prince Henry of Battenberg. The choir of Savoy Chapel sang two verses of the national anthem, after which the Archbishop of Canterbury ad-

vanced towards the stone and offered several short prayers. The choir then sang a hymn. After which the President of the Royal College of Surgeons advanced and read the following address:

"May it please your Majesty,—We, the Royal College of Physicians of London and the Royal College of Surgeons of England, who owe our foundation to Royal favor, and, on whom for many years the responsible duty of granting diplomas in medicine and surgery has, by Royal charter, been entrusted with a view to the further advancement of medical and surgical education, have recently combined to establish a joint examination in medicine and surgery and in the sciences on which they are founded. We hope by this means permanently to remove many of the existing difficulties which stand in our way, and also to render the examinations more complete and satisfactory. In order to promote the advancement and efficiency of those sciences we have undertaken to erect this hall in which the examinations will be conducted, and which will be entirely devoted to those purposes. We cannot but regard it as a happy omen for the future success of our undertaking that your Majesty has been graciously pleased to inaugurate this good work by your Majesty's presence here to-day; and we desire to express to your Majesty our grateful sense of the distinction conferred on the two colleges and on the professions. In witness, we have caused our common seals to be hereunto affixed the 24th day of March, 1886." The Queen then read the following reply:

"I thank you for your loyal address. It is with sincere pleasure I lay the foundation stone of the building you propose to erect. I cordially concur in the hope which you have expressed that this undertaking, in which I take a deep personal interest, may largely and permanently contribute to the further advancement of medical and surgical education. The establishment of this hall is mainly due to the efforts you have made in conjunction with the President of the Royal College of Physicians, with whom I have long been personally acquainted, and whose eminent abilities and far-seeing knowledge have justly placed him in the first rank of those who have benefited mankind."

Neither the address nor the Queen's gracious reply could be heard far from the dais, but the low, clear tones of her Majesty's voice, as she read from the manuscript were distinguishable in the farthest portions of the pavilion. The actual work of laying the stone then began and it was interesting to see how her Majesty entered into

the spirit of the occasion. With her own hands she deposited in two glasa jars, prepared for the purpose, one each of the current coins of the realm of the present year, a copy of the *Times* and *Morning Post* newspapers and of the *Lancet* together with a list of the members of the two corporations of the Colleges of physicians and Surgeons. These jars she placed in the cavities prepared for them in the bed of the stone. She took great pains in spreading the mortar, and finally when the stone had been lowered into its position she gave it three taps with a mallet and declared it well and truly laid. Whereupon the assembled physicians and surgeons gave three such volleys of cheers as must have taken her Majesty by surprise. The following inscription is on the stone, which was composed of a piece of granite from Balmoral, the Queen's domain in Scotland.

VICTORIA
QUEEN OF GREAT BRITAIN AND IRELAND,
EMPRESS OF INDIA,
LAID WITH HER OWN HAND
THIS STONE,
24TH OF MARCH, 1886.

The following gentlemen were then presented to the Queen by Sir Wm. Jenner, Bart: William Scovell, Savory, M. B., Lond., F. R. C. S., F. R. S., President of the Royal College of Surgeons of England. Edward Lloyd Birkett, M. D., Cantab., Senior Vice-President of the Royal College of Physicians. John Wood, F. R. C. S., F. R. S., Senior Vice-President of the Royal College of Surgeons. John William Ogle, M. D., Oxon., F. R. C. P., Junior Vice-President of the Royal College of Physicians. Henry Power, M. B. Lond., F. R. C. S., Junior Vice-President of the Royal College of Surgeons. Dyce Duckworth, M. D. Edin., F. R. C. P., Treasurer of the Royal College of Physicians and Chairman of the Building Committee. Sir Henry Alfred Pitman M. D. Cantab, F. R. C. P., Registrar of the Royal College of Physicians; and Mr. Stephen Salter, F. R. I. B. A.,[1] the Architect of the Examination Hall.

The Archbishop of Canterbury having pronounced the benediction, the impressive ceremony came to an end. As the Royal pro-

1 Fellow of the Royal Institute of British Architects.

cession reformed to escort the Queen to the entrance, another hearty cheer burst from the assembly which her Majesty acknowledged by bowing thrice. Sir Wm. Jenner had the honor of kissing the Queen's hand. The Royal party then returned to Buckingham Palace.

As the Queen was driving out in the afternoon a discharged soldier who is alleged to be a lunatic threw a paper parcel into Her Majesty's carriage. The press has at times complained that the Queen so seldom visits London and that the metropolis has been deprived of the presence of a real court for now close upon a quarter of a century; but how is it to be supposed that the Queen will care to visit London, if she is frequently exposed to such annoyances as the one above alluded to? No other lady in the land is exposed to such outrages. It would naturally alarm the occupants of any carriage for a man to break through the line of policemen and soldiers and throw a packet into it, and especially so in the case of members of a Royal family, when the experiences of the Emperor of Germany and the late Czar of Russia are brought to remembrance. The occupants of the Queen's carriage admirably preserved their presence of mind, and beyond hastily throwing the packet out of the carriage showed no other evidence of alarm. The Queen continued the drive.

The Queen has often been assaulted in this disgraceful manner when she has attempted to return to London, and the miscreants have generally been excused from all punishment on a plea of insanity. Whether insane or not such individuals ought to be thrashed. The immunity from punishment on the plea of insanity is carried too far, and to a great extent is due to the influence of the "*Lancet*." The "*Lancet*" pleads the cause of any culprit convicted of crime in whose history or antecedents any excuse can be found for the suggestion of insanity. It is extraordinary how very rationally the inmates of asylums will discuss the incidents of a case of murder and discount the chances the criminal has of escaping punishment on the plea of insanity. One patient will explain to another that if he were to commit murder he would not be hanged because he had been the inmate of an asylum. There is no doubt that people of unsound mind, with very few exceptions, understand the difference between right and wrong as well as the most sane amongst us; and punishment has, in most cases, as strong a deterrent influence with them as with other members of society

It is only on certain subjects or at rare intervals that their actions are uncontrollable. This, of course, does not refer to those suffering from amentia or dementia, but those who have sufficient wits to lay plans and carry them out in a particular manner. All such lunatics have a very good idea of when they are acting rightly or wrongly, and what acts are likely to be followed by punishment or the reverse; for punishment within asylum is a most essential part of the treatment and discipline, although outside an asylum the same class of patients would be allowed to transgress with impunity. An assault of one lunatic upon another in an asylum entails solitary confinement, or at any rate a curtailment of the previously enjoyed liberty, and therefore assaults within such institutions seldom occur. A few lunatics hanged would stop a great many more lunatics from committing murder, and a few lunatics thrashed would stop a great many more lunatics from insulting ladies.

It is extraordinary how the crazy mind affects Royalty. One lunatic will think himself the Emperor Napoleon and be sane on all other subjects, another will insist that he is the son of the King of Mesopotamia, while others will think they are suffering under Royal displeasure. The greatest annoyances from which the police and detectives have to protect members of Royal families wherever they go, are outbursts of some sort from persons suffering under some form or other of mental aberration. Some lunatic parson or governess has always some grievance which they wish to force upon the attention of the Queen, and the greatest difficulty is sometimes experienced in preventing such persons obtruding themselves upon the Royal presence. The discharged soldier referred to, as alarming the Queen on the 24th of last month, thought he had been deprived of his pension. A short time ago, before the marriage of the Princess Beatrice, an insane person insisted that he was betrothed to her Royal Highness, and followed her wherever she went, endeavoring to force himself into her company. He caused the greatest trouble to the detectives who were employed to protect the Princess, and was only ultimately disposed of by being taken by one of the detectives to an asylum. He was readily induced to accompany the officer on the supposition that he was being taken to Windsor Castle for the performance of the marriage ceremony between himself and the Princess. When he arrived at the asylum, he at once realized his position and recognized the institution to which he had been brought and most savagely assaulted his con-

ductor, and no doubt would have seriously injured him had he not been secured by the attendants. More lunatics are at large at the present time than is usually the case, on account of the difficulty which is experienced in getting medical men to certify as to their insanity. So many actions have, during the last few years, been brought against medical men by released lunatics, that no member of the profession likes to incur the risk of subjecting himself to such a prosecution. Whichever way a trial results, the medical man must necessarily be a considerable loser, for he receives no compensation for his loss of time, or for the expenses incurred in defending himself. In the new Lunacy Act, at present before Parliament, provision is made for defending medical men from prosecution when the certificates have been signed and given in good faith.

E. V. A.

Remarkable Incident.—At a recent execution of a murderer in France, a strange circumstance occurred. The condemned man during his trial and final imprisonment did not evince the least fear. When, on the morning of the fatal day, he was roused from sleep and informed that his hour was come, he received the intelligence calmly. He arose, attended to his last religious duties, ate a hearty breakfast, had his "toilet" made, asked for a good glass of brandy and said he was ready to go. He walked between his attendants with firm step and a look of resolute courage, almost of defiance. But when he came in front of the ghastly instrument of death and glanced upward at it, he was noticed to blanch or turn almost white. At the same time his body became inert. He was lifted on the bascule, where he lay for twenty-five awful seconds before the knife fell. Meantime he did not stir. When the head was severed from the body it was noticed that the blood did not spurt eight or nine feet, as it usually does in such cases. When the physicians examined the body, they found the heart filled with congealed blood. It is supposed that when he looked at the guillotine and turned suddenly white, his heart ceased to beat. He was dead before the knife touched him. He died from fear.—*Mind in Nature*, Feb. '81.

NOTES AND ITEMS.

AMERICAN ADDRESS BEFORE THE BRITISH MEDICAL ASSOCIATION.—Dr. John S. Billings has accepted the invitation of the president of the British Medical Association, to deliver the address before the Association, which was to have been given by Dr. Austin Flint. No better selection could have been made.

THE JOURNAL OF RECONSTRUCTIVES is devoted to the discussion of matters relating to dietetics and alimentation. The April issue contains papers by J. Milner Fothergill, W. J. Playfair, Arthur V. Meigs, Geo. B. Fowler, Chas. L. Dana and L. Mitchell. It enters a new field and one of great importance. We shall welcome it to our table.

CAUTERY ACCIDENT.—A speaker at a St. Paul Medical Society recently reported a strange accident which happened to him in performing an ovariotomy. In using a "Paquelin" thermo-cautery (not one of the genuine instruments) nearly all the points had been touched when suddenly the shank unsoldered from the handle and dropped, white hot, into the abdominal cavity. Though several places in the intestines were seared, no eschars were produced and the woman recovered.

VANDERBILT CLINIC.—In addition to the munificent donations to the New York College of Physicians and Surgeons, made by Mr. Vanderbilt during his life, and the founding of the Sloane Maternity Hospital by Mr. Vanderbilt's daughter, still another contribution from his four sons is recently reported. The sum of $250,000 is given for the erection and endowment of another building to be known as the Vanderbilt Clinic. There will be a free medical dispensary on the first floor, an amphitheater for clinical purposes on the second floor, together with a number of small rooms for private instruction, or instruction in specialties.

The New York College of Physicians and Surgeons is undoubtedly now the best endowed medical college in the country. We look to that institution to take a step forward in requiring more thorough work before graduation than is demanded by other New York schools.

ST. LOUIS
COURIER OF MEDICINE.

VOL. XV. JUNE, 1886. No. 6.

ORIGINAL ARTICLES.

ON CATHETER FEVER.

BY W. HUTSON FORD, M. D., ST. LOUIS, MO.

[*Read before the St. Louis Medico-Chirurgical Society, April 6, 1886.*]

NEAR the close of 1883, Sir Andrew Clark briefly directed the attention of the Clinical Society of London to the group of fevers known to ensue upon instrumental interference with the urethra. He shortly afterwards brought this subject before the London Medical Society in a valuable address published in March, 1884. Its historiography was laboriously collated at his request by his assistant Dr. Delépinè, and is set forth succinctly in the article referred to, with a promise of future publication *in extenso*. This sketch with cases which Sir Andrew had seen, though as a medical man he had never conducted the treatment of one, forms the text of his remarks, and as it is the latest of its kind, I beg leave to introduce a short synopsis of it here.

Although the existence of a relationship between urethral instrumentation and certain modes of constitutional disturbance had been admitted since the beginning of this century, it was not until 1832 that Brodie, Velpeau, and perhaps Civiale, distinctly described these accidents, their initiatory conditions, complications and terminations, defined their varieties, demon-

strated their dependence upon surgical interference with the urethra, and endeavored to explain their nature. Velpeau's accurate description and natural classification have remained thus far the best expression of the pathology of the subject, and have formed the basis of views, more or less similar, promulgated by subsequent writers, not always with due acknowledgment.

Brodie emphatically mentions the dangers of catheterism (by which term is implied the passage of bougies, sounds or catheters) and describes as occasionally occurring in consequence of it, paroxysms of irregular fever like ague, leading sometimes to prolonged debility, sometimes to continued fever with rheumatic pains, and sometimes to mania. Death, he says, may follow, but cites no case of its actual occurrence.

Velpeau enters much more minutely into the nature and relations of the fevers thus mentioned, and contributes several new ideas to the further development of the subject. He alleges that in some persons, perfectly healthy, not exposed to the influence of malaria, even easy catheterism may develop a consecutive and continuous fever, and that this fever has five varieties. In the first, it consists of a single paroxysm, ending in malaise and debility with recovery in a few days. The second consists of recurring paroxysms of fever, issuing in continued fever, and is often fatal. The third consists of an inflammatory fever arising out of nephritis, phlebitis, or other local inflammation. The fourth consists of fever associated with purulent arthritis. The fifth consists of a rapid succession of violent paroxysms of fever, speedily ending in collapse and death. Velpeau clearly points out that in the second and fifth varieties he has never found present at the autopsies any adequate structural cause of death, and in these cases he is disposed to regard as the origin of the fever, the absorption of vitiated urinary constituents.

Civiale gives a full and admirable account of this catheter-fever, but though admitting that the fever is referable sometimes to the urethra, and sometimes to the bladder, and contending that the one differs essentially from the other, he almost angrily minimizes the effects of surgical interference, though in a later part of his work he changes his point of view, saying that the cause of the fever is vague and uncertain, and that in speaking of its nature we can only guess.

Phillips, in 1858, while mainly following Velpeau's classification, asserts that the simplest as well as the severest catheterism, with the largest or the smallest instrument, may originate the fever, that unless the affection of the urinary tract lie behind the bulb, the fever does not follow, and that the predisposition to it lies in the existence of certain diatheses and in chronic disorders of the general health.

In 1859, Marx adopts a classification of the varieties of catheter-fever similar to that given by Velpeau, recognizes uncomplicated cases issuing in death without any discernible structural lesion outside the bladder, quoting eight or nine that occurred in his own practice, asserts that the fever may occur in persons of perfect health, and that in them, as well as in others not healthy, it may follow upon any state of the urinary organs requiring the passage of a catheter. He emphatically declares the fever to be uremic, and ascribes its origin to insufficiency of the kidneys arising out of functional or structural disease. In this work, perhaps for the first time, says Sir Andrew, the causal relation of catheterism to the catheter-fever is clearly and comprehensively set forth, and an ingenious if not accurate theory of the genesis of the fever propounded.

The publication of Sir Henry Thompson's work on the Urinary Organs in 1867, greatly advanced the practical and to some extent the theoretical aspects of this subject. Thompson speaks of the perils of catheterism, gives instructions for averting them, notes the occurrence in a few exceptional cases of a low irritative fever, and quotes Sir Benjamin Brodie to show that in a few weeks it might terminate in death. Thompson further remarks, and I quote from his lecture published in 1868, "Notwithstanding all your care, now and then you will find a case in which during the treatment the tongue grows slowly more red, dry and contracted, the powers of life gradually fail; the senses become impaired and the patient sinks. You will always find by autopsy (and in this observation, as Sir Andrew Clark points out, Thompson differs from almost every one of his predecessors in this line of inquiry) old standing pyelitis with dilatation and injury to the renal structure, and you will know that in no circumstances could the patient have long survived."

In 1867 Sir Joseph Fayrer gave an admirable account of three varieties of catheter fever, declaring that the predisposition to them lay in the malarious state and its consequences, or else in incipient or advanced disease of the kidneys or other part of the urinary tract; that it begins in reflex disorders of the nervous system, that it is not *toxemic*, and that catheterism alone without injury or sensible irritation is, in these circumstances, sufficient to originate the febrile process.

In 1868 Sir James Paget reviewed the subject, and stated that catheterism will be especially dangerous and may induce death when the constitution is chronically disordered, the urine of low density and abundant, and when something has occurred to cause temporary depression of the health. He inclines to the belief that renal degeneration is the cause of the fever, but admits that as far as his own experience goes the cause is apparently inadequate.

Writing in 1871, Banks, of Liverpool, admits that renal disease predisposes to such attacks, denies that they are due to suppression of urine, and ascribes them to shocks of greater or less severity.

Malherbe, in 1873, in his work on "Fever of Diseases of the Urinary Passages," illustrates the subject by temperature charts, and avers that the fever may arise without local irritation, describes it as uremic, alleges that the predisposition to it is renal, while admitting in some cases no structural lesions are to be found, and holds to the hypothesis that the fever is based upon renal imperfection.

In 1877, M. Marcus Beck, contributed two very careful, thoughtful and accurate papers to the elucidation of this subject. He holds that the predisposition to the most rapidly fatal of these fevers lies in chronic disorders of the health, in renal imperfections and in age, and that the exciting cause is probably mechanical irritation or injury of the urethra, whose immediate effects are reflected upon the kidneys, so as to bring about their structural or functional insufficiency. He strongly supports the view that the fever is uremic.

This concludes the condensed review of M. Delépinè's historiographical sketch as contained in Sir Andrew Clark's paper.

The subject since then has excited considerable attention. In a lecture published in the *Lancet* eight months afterwards, Sir Henry Thompson speaks forcibly of these dangers of catheterism, especially where noted lesions of the urinary organs exist as follows: "I have one more caution to utter in regard to habitual catheterism or those elderly patients whose circumstances have been referred to, which is of great importance when the bladder has been for a long period of time overdistended,—the patient's condition having been overlooked for months or even for years, in consequence perhaps of catheterism having been forbidden; it is, at this advanced period of the case, a serious matter to resort to it. Rashly undertaken, great as is the relief at first experienced, symptoms of fever, "urinary fever" as it is, I think, properly termed, often appear in a few days; cystitis occurs, catheterism is required more frequently, the urine becomes highly purulent, the powers of life feeble, the tongue dry, nourishment is refused, and the patient sinks usually in about three or four weeks from the first employment of the instrument. On autopsy, almost invariably the ureters will be found dilated on one or both sides, one of the kidneys diminished in bulk and wasted, the other enlarged, inflamed, and perhaps the seat of numerous deposits of pus. It is said that such fatal histories following catheterism for long continued distention of the bladder, have occurred in individuals whose urinary organs when examined after death, are found free from organic disease. Far be it from me to state that such a sequence of events is impossible; but it must be one of great rarity. No example has occurred within the range of my experience." Here we find Thompson reaffirming in 1885 the same views he originally promulgated in 1867.

Sir Andrew Clark continues the discussion as follows: "It will be seen that catheterism is occasionally followed by a fever, which has received the various names of urethral fever, urethrovesical fever, urinary fever, uremic fever, catheter fever, etc.; that in some cases this fever is dependent upon or associated with purulent arthritis, ordinary pyemia, what is known in England as surgical kidney or interstitial nephritis, and that in a small, but still noticeable percentage of cases, no adequate structural

cause of death has been found." He then offers the following propositions with regard to that form of catheter fever alone, neglecting the others, which is associated with habitual catheterism for retention. "First. That after death in such cases, a not infrequent result, there is often no adequate structural lesion observable. Secondly. That in view of the possibility of so grave a termination of the case, the patient and his friends should be duly forewarned. Thirdly. That this matter should be specially dealt with in current and systematic surgical literature, where, he says, it has no adequate place, and thus be made accessible to the whole body of the profession. Fourthly. That this fever is neither distinctly uremic nor pyemic; that it probably begins in the nervous system, reacts first upon the general metabolism of the body, and in the second instance, upon the secretory organs, beginning with the kidney. That the effect upon the kidney may consist either in structural alterations, invisible by the aid of our finest instruments of research, or, much more probably, in alterations of the constitution of the blood, that dynamic condition of its constituents in the renal vessels essential to the elaborative action of the renal secretory cells; and lastly that the concurrence of these conditions may be and often is enforced by septic resorption into the blood." Almost every writer of distinction of these times, says Sir Andrew, adheres to the uremic origin and nature of catheter fever, or of the thing known under that and other names, and he finds himself thus left alone and very imperfectly armed to oppose such a view. He grounds his opposition to this exclusively uremic etiology upon the fact that the phenomena of catheter fever in their assemblage and progress are different from those of the ordinarily recognized uremia. Its duration is longer than that of acute uremia, whose proper symptoms are absent, and shorter than that of chronic uremia, wanting its neuralgias, recurring headaches, defects of vision, transient paralyses, itchings o the skin, vomiting, dyspnea, palpitations, nervousness and low temperature. The urine of this variety of catheter fever, moreover always loaded with organisms, and, though it contains a little albumen, shows no casts, and is capable of amendment.

Banks describes these effects of simple catheterism, and clas-

sifies them under three varieties. First; rigor with malaise, recovering speedily. Secondly; rigor with malaise and prostration, followed in a few days by fever and death. Thirdly; shock, producing death sometimes within a single day. (Clark).

Van Buren refers the reader to the papers of Girard, Malherbe and Banks, admitting that the uncertainty which surrounds "that condition known as urethral fever has not yet been entirely cleared up. He classifies these affections under four distinct types. 1st; a sharp chill, coming on usually within twenty-four hours, attended by increased temperature, followed by fever, with perhaps delirium and sweating. This may be all, or in other cases there may be febrile excitement for a number of days, with malaise, inappetence, loss of strength and a slow recovery, or there may be renewed paroxysms of chill with fever, with irregularly marked intermissions. This, he says, is the most common form. 2nd; there may be only a few slight rigors without much fever or any sweating, the patient afterwards being as well as before. 3rd; there may be a violent chill coming on rapidly, but of variable duration, attended by intense prostration, alarm, and excitement at first, violent vomiting, profuse diarrhea, coldness and lividity of the surface, almost total suppression of urine, all the symptoms of uremia, and a rapidly fatal issue. 4th; there may be a slight chill and fever, followed by the (usually rapid) development of septicemic symptoms and death, or more slowly, by true pyemia and death, the autopsy revealing abscesses in the prostate, kidney, liver, lungs, suppuration in the joints, fluid in the pleuræ, pericardium, etc.

Van Buren states that the first two forms are by far the most common, and fortunately so, as they are the least disastrous. That all these disorders should depend upon the simple absorption of urine through an abraded surface, is, he says, in the highest degree improbable. Other forces are at work, such as shock, reflex suspension of the renal function when the kidneys are already diseased, and putridity of the urine. The mystery, he says, is that these fevers do not constantly occur when the conditions are the same. The majority of patients escape, whether the urine is ammoniacal or not, whether the wound or violence is great or small. The same patient may have a chill

one day, and escape it after an exactly similar operation the next day, or vice versa. The gentle passage of a small soft bougie may cause it, while divulsion or urethrotomy some days after may not; or after divulsion without the occurrence of a rigor, the passage of a steel sound may induce one. The extent of the injury done, he says, is no index of the amount of fever that will follow. The gentle passage of a smooth sound may cause speedy death, while extensive wounds and laceration of the canal are often absolutely innocuous, and that too, where the urine is strongly alkaline (decomposed).

Van Buren directs attention anew to the fact that patients upon whom no instrument has ever been passed, have well marked exacerbations of chill and fever (dumb ague as they call it) in connection with urethral and bladder disease, and these patients cease to have chills after the stricture has been dilated with instruments. He also endorses Phillips' assertion in the main, by stating that the danger increases in proportion to the depth of the lesion under treatment from the meatus. A wound, he says, does not seem to be at all necessary, cases being recorded where death has followed rapidly upon the introduction of a smooth instrument, autopsy failing to reveal any lesion of the canal. Here shock and reflex action arresting kidney secretion would seem to be the immediate cause of death. The chill may come on before the instrument has been withdrawn from the urethra, but usually not until some hours after, and generally, not until after urine has flowed through the canal. Here a case is cited of divulsion at the bulbo-membranous junction in a man who had been a hard drinker. A rigor occurred during and after the operation, rapidly followed by low fever, mild delirium, and death on the ninth day. Only the single rigor occurred. Autopsy showed death by pyemia, several abscesses in the prostate, and a small one in the left lung, with pleuritic and pericardial effusion. There was suppuration at two points where the hypodermic needle had penetrated the arm. The patient was evidently ripe for suppurative inflammation at any point injured.

In rapidly fatal cases, after instrumentation, says Van Buren, old and often advanced kidney disease, or, at least, intense hyperemia of the kidney, is found on autopsy, but in some cases

these organs have been pronounced normal. Even in these latter there has been usually suppression of urine, but simple suppression of urine does not kill in one or two days, and to solve the problem, in these cases, we are forced to fall back upon the effects of shock.

Systematic writers upon surgery, as Sir Andrew Clark observes, have not sufficiently invited the attention of the profession at large to these very common and highly dangerous complications of the maneuvres and operations upon the urinary organs, on which they dwell at so much length. Neither Holmes, in his individual work, nor Mr. Bryant, speaks of them at all. Sir William Ferguson, however, writing in 1852, mentions violent shiverings, spasms, retention, etc., as of common occurrence, where dilatation of a stricture is pushed too rapidly. But this is all. Mr. Erichsen is more explicit. The introduction, says he, of instruments into the urethra, gives rise occasionally to syncope and rigors. In certain persons there is a great tendency to shivering and faintness, particularly as the instrument approaches the neck of the bladder. These effects may immediately disappear, or may continue for many hours, or may not appear until after the lapse of a day, the rigors being very severe and intermitting, so as to resemble an ague-fit. The temperature may rise during the rigor to 104° or 106°. Profuse sweating with great exhaustion succeeds. This occurrence is always very alarming, and if the patient be old, of broken constitution, or the subject of kidney disease, a fatal result may rapidly ensue. In one case death ensued at the end of nine hours from a continuance of the syncope; in another, in two days from suppression of urine, and this even, although no material difficulty was experienced in passing the instrument. The cause of these rigors and sweatings is exceedingly obscure. They occur in the most courageous of men, and very rarely follow the use of the catheter in women. Here he cites a case where three most intense rigors with sweatings followed dilatation of the urethra with a two-bladed dilator after twenty hours, in the person of a strong, healthy, young, married lady, who had a stricture of the orifice of the urethra. In men these accidents occur after dilatation of any part of the urethra, but

mostly so after deep dilatation, possibly because the deeper portions of the canal are more commonly strictured. A case of death, however, was known to him, after a rigor following incision and dilatation of the orifice of the urethra. He doubts whether these rigors occur unless there have been some lesion, abrasion or rupture of the mucous membrane of the urethra. They certainly follow the use of the metallic instruments more frequently than that of the softer kinds.

From what precedes it will be seen that the following statements, with regard to these accidents, have received the sanction of some or all of the authorities cited.

1. That they may occur in perfectly healthy subjects. (Velpeau, Marx, Van Buren, Sir Andrew Clark.)

2. That they may occur and death ensue without visible lesion upon autopsy. (Velpeau, Marx, Malherbe, Van Buren, Clark, Sir Joseph Fayrer.)

3. That they may occur equally after the use of large or small instruments. (Phillips, Van Buren.)

4. That their occurrence is not related to the degree of surgical interference with the urinary passages. (Van Buren.)

5. That the fever does not follow unless the affection lies behind the bulb. (Phillips and, with some modification, Van Buren.)

6. That the predisposition to the gravest and lethal forms of these fevers consists in reflex or structural renal insufficiency. (Velpeau, Van Buren, Sir Andrew Clark, in part.)

8. That these fevers originate in irritation of the urethral nerves, and are primarily nervous phenomena. (Banks.)

9. That in the most marked continued and fatal cases, the condition is due partly to uremia, and partly to resorption of decomposing elements from the urine. (Sir Andrew Clark.)

The pathology of fever has been very distinctly advanced since certain of these expressions were put forth. I cannot help believing that under the term, catheter-fever, are included morbid states of distinctly different, and even of mixed character. Let us glance for a moment at the conditions under which these accidents occur. The urethra is most abundantly supplied with nerves, and is compared by Thompson to the ocular con unc-

tiva in sensitiveness. Its prostatic portion is supplied with nerves of exaggerated sensibility. The sympathetic relationship of this region to other organs through the nervous system, and particularly with the great cerebro-spinal centres is as intimate as that of the uterine mucous surface to certain parts of the economy. The prostate is indeed the strict homologue of the uterus, and irritations of its mucous lining, and probably of its parenchyma, exercise very potent degrees of inhibitory influence, both normally and pathologically. The phenomena of death in prolonged shock, occasionally consequent upon distention of the uterine cavity by air, instruments, or injected fluids, especially where endometritis exists, are to be ranked, I think, as truly analogous to those where death occurs soon after catheterization. The "shivering and faintness," spoken of by Erichsen and Van Buren, as attendant upon passing the catheter, especially noticeable while the instrument traverses the prostatic region of the urethra, are familiar to all of us. Other cases are on record of death within twenty-four hours, or thereabouts, after catheterism. I myself know of one where the catheter was passed by the patient himself. As in the case cited by Van Buren, a rigor may occur even before the instrument is withdrawn, or it may come on later, with rapid rise of temperature, clouding of the intelligence, delirium, and partial or total suppression of urine. Here the condition is one that should be attributed to a combination of shock with acute renal congestion and uremic toxemia, if it lasts more than twenty-four hours, but the rapidly fatal cases, where the temperature does not rise, the features sink and the patient is in evident collapse, must, I believe, be ranked as instances of an overwhelming of the powers of life by the exaggeration of those steps of the febrile process which are naturally initiatory. The economy fails to react, the reactive stage of fever is not reached or developed, and the individual succumbs by an inhibition of the great functions of life, as he does in fatal syncope, in a congestive chill, in Asiatic cholera without alvine discharges, and not directly by any kind of intoxication, septicemic or uremic, but by the disastrous results of an over potent inhibition. And just as we rightly class cholera among the pyrexiæ, so may we include such cases, per-

haps, in the group of catheter fever, even though no obvious fever be ever apparent.

With regard to the proposition that phenomena of this kind may occur in perfectly healthy subjects, as affirmed by Velpeau, Marx, Van Buren and Sir Andrew Clark, I may simply say that I greatly fear there has been some misconception as to the existence of this alleged perfect health in the cases referred to. I have certainly never seen or heard of a case where the simple passage of the catheter, for scarcely any other instrument could be called for, as occasionally practised upon a truly healthy urethra, has been followed by any such disastrous results. We pass a catheter down a urethra known to be healthy or most probably so, in certain conditions during fevers, after injuries of the spinal cord, or during inflammatory or congestive states of the spinal medulla, and its envelopes, when the bladder is paralyzed, for some other paralytic affections of the bladder, for obstructions of the urethra by tumors or abscesses, and possibly in other analogous conditions, but as far as I have seen, or know, without any subsequent rigor, fever or prolonged shock. Where the phenomena in question have been observed, I think the chances are that there has been some unnoticed or latent inflammatory state of the urethra, by which its normal sensitiveness has been greatly exaggerated, in connection, possibly, with an exciting but unrecognized malarious state, such as Sir Joseph Fayrer directs attention to. The entire mass of cases where these accidents have occurred, evidently presuppose some affection of the urinary channels. The bougie or catheter had been passed for the dilatation of a stricture, in the treatment of a gleet, or to relieve retention of urine. I may only advert to the existence of chronic inflammation behind all contractions of the urethra, to the presence of inflammatory granulations at various points in chronic gleets, to the inflammatory features and complications of chronic prostatitis and deep urethritis, to the subacute inflammation of the entire urinary passages, which supervenes at times in gouty constitutions, as a consequence of abnormally acid urine, and to the irritating effects of oxalate of calcium in the urine. A similar pronounced subacute or even acute inflammation of the bladder and urethra, and at times

eventually of the ureters and pelves of the kidneys, attends upon decomposition of the urine, being provoked by the carbonate of ammonium present in the putrescent urine. So, also, in pyelitis, whether calculous or due to other causes, when pus is poured into the urine it excites chronic inflammation before long in all the parts below the kidney, especially in the urethra. Residual urine, also, whether retained in the urethra by a stricture, or in the bladder by some obstacle to the complete evacuation of the urine, is sure to beget inflammation of the tracts behind the point of obstruction. Certain causes are often active in predisposing to congestion and subsequent inflammation of the urinary tract. Where the prostate is hypertrophied, the return of blood from the bladder by way of the prostatic plexus is greatly impeded by the pressure of the overgrown prostate, and the distension of the bladder by retained urine, in conjunction with its weight, which is excessive in some instances. A congestion of the vesical and prostatic mucous membrane is then maintained which excites an exaggerated secretion of mucus, and this, in turn, by retention, becomes decomposed, and provokes alkaline fermentation of the urine. A very high degree of susceptibility to inflammation and later actual inflammation very often are thus established before any instrument whatsoever is passed, ready to explode in rigors, or in those prolonged nervous phenomena of an inhibitory character, which have been mentioned. The influence of hepatic obstructions, and of the malarious state, often undiscoverable at first, except in their effects, must be admitted as very important, I believe, in the production of the most sudden and violent varieties of this catheter fever. Perhaps their influence may be due to pelvic venous congestion as a result of impairment of the hepatic circulation, and also to a *general* venosity of the circulating fluid, with that impaired venous and lymphatic circulation which seems to belong to the so-called malarious state. All these considerations may co-exist, when, sooner or later, instrumentation becomes necessary, the primary appeal for treatment usually coinciding with some exacerbation of the local conditions due to taking cold, to an intercurrent malady, or to a temporary increase of urinary acidity.

I cannot avoid suspecting that the existence of some of these

conditions has either been overlooked, or not adequately appreciated by those who have cited cases of catheter fever as occurring in so called healthy subjects. While the general health may not have been obviously affected, a demand itself for local treatment presupposes the existence of some chronic inflammatory condition of the urinary passages.

In this connection, I beg leave to say, that it is surely in accordance with surgical principles that the supervention of the febrile and other phenomena under consideration should be definitely, if not absolutely, related to the modes and degrees of instrumental intervention, and that such a relationship does exist my own experience compels me to admit. It is, I believe, a matter of great moment, with regard to the occurrence of these accidents, which although uncommon after simple catheterism, or the discreet use of sounds, occur in three-fourths of the cases where a traumatism is practised, how we use instruments and what kinds of them we employ. It is, I am sure, very significant whether we use a flexible or a solid catheter, a small or a large one, one with a flexible bulbous tip or a rigid extremity, with a smooth or a rough surface; whether or not we contuse the urethra or scrape it, as with a fragment of calculus grasped in a lithotrite; whether we reach the bladder easily or with difficulty; whether we allow a sound to remain long in a stricture, or use a large one, or exercise much force in passing it, or the reverse, or whether we operate quickly or slowly. Still further, as, e. g., in the treatment of stricture, it matters much, I must believe, whether we attempt to remove the obstruction by continuous dilatation, tying in a bougie, by gentle intermittent dilatation with polished steel sounds of appropriate sizes, or by divulsion, or internal or external urethrotomy. The gentler the methods followed, as far as I have seen, the more secure may we feel against these alarming and dangerous accidents, though never wholly secure. On the other hand, when we are obliged to make a wound or to prolong the contact of instruments with the urinary passages, or to introduce them very frequently, every day or so, or many times a day, we must prepare ourselves to meet these accidents. Rigors may suddenly explode and be repeated, or subacute febrile conditions may arise, simple, or complicated

with much graver troubles such as abscess of the prostate, of the base of the bladder or of the kidney, or true pyemia may set in with the affection of distant organs, or septicemia, or uremia or all of these combined.

I may also point out that a certain number of the cases reported under the group of catheter fever, by some of the older authors, seem to have no proper place there, but as their autopsy demonstrated, were undoubtedly cases of pyemia, whose symptomatology and pathology are much better understood now than when Velpeau wrote. Even if initiated in a traumatism followed by abscess, as we see in cases of prostatic abscess occurring during catheterism, and although rigors with sweating, or the continued form of urinary fever co-exist, pyemia must be regarded as a distinct and superadded affection, and in no sense properly a catheter fever. As it may have originated independently, so it should be regarded as a sequel or complication of the urinary fever, when this exists. Although pyemia is characterized by irregular rigors with rise of temperature and sweating, its rigors differ in all their surroundings from those of transient urethral irritation, or of malarial fever. Pyemia generally occurs after wounds of the urinary passages, as a consequence of urinary infiltration. It may likewise occur, we must admit, although I cannot say that I have ever seen such a case, by the extension of urethral or vesical inflammation to surrounding parts, especially to the veins and lymphatics (Velpeau). Its common cause, however, after operation, is infiltration of urine into the areolar tissue and the establishment of a septic purulent cellulitis. Even when not putrescent, urine, so extravasated and retained, even in very small quantity, will rapidly engender pus, and the state of the constitution and local reactivity of the parts concerned will determine whether the pus centre shall become segregated from the economy by a sthenic exudative process, or prove a focus of general infection.

In general, we should avoid making wounds of the urinary passages when we can, and when obliged to do so should select the operation which is soonest performed, requires the least amount of wounding, which does not favor concealed hemorrhage, and the distention of internal parts it produces, and which

allows access from the exterior, and free drainage for blood and urine through the wound itself.

I may mention here a case of catheter fever with uremic symptoms, apparently due to dilatation of a stricture at the bulb with steel sounds, which occurred to me a few years ago. The patient had suffered for some years from a chronic cysto-prostatitis with a marked contraction (20 French) at the bulbo-membranous junction. Under treatment, including the sound, he improved in all respects so much as to leave the city, though against my advice, on a visit to some friends. During this visit he took some very long walks in the country and otherwise exhausted himself, and was obliged to return for further treatment. The sounds were resumed and introduced once or twice only, but within a few days the patient began to fail, became listless and drowsy; the tongue became dry and darkly coated, and there was muttering delirium. He never had a rigor or convulsion, and the urine remained comparatively clear until death occurred after an illness of about two weeks. The left kidney was examined and found enlarged, with a thickened cortex, and generally congested and softened. This case was one, I think, of latent nephritis with uremic symptoms, and I believe that the fatal issue was dependent upon the vesical and urethral irritation augmented by indiscretions in the country and a resultant malarious state. It would seem to be a typical case of fatal catheter-fever of uremic variety. The kidneys may have been affected previously, but there were no distinct evidences of this in the condition of the urine or otherwise.

The mild uremia of these somewhat prolonged cases is due, it seems to me, not merely to inhibition of the functions of the kidney through nervous channels, but to structural impairments of a congestive or quasi-inflammatory character. Whether such a latent nephritis originates, in cases like this, in a congestion of the renal cortex propagated upwards from the bladder, or results from the general febrile cachexy, as so many parenchymatous inflammations do, I will not venture to decide. This variety of renal mischief is, at any rate, a chief factor in the well-known form of catheter fever which affects old men who are entering upon

what we call catheter life for prostatic obstruction. Here all the morbific elements concur. The condition of the urinary organs renders them highly prone to take on inflammatory action under almost trivial exciting causes, as I have said. One main cause of irritation is inevitable, for the catheter must of necessity be frequently introduced sooner or later, while the obstruction is seated in the most sensitive part of the canal, and that, moreover, most closely linked by sympathy to the great organs of life. So close is the obstruction, for our first call is often to relieve retention, that the very smallest soft rubber catheter through which the turbid urine will flow, or washing of the bladder can be effected, requires a certain degree of coaxing if not force for its introduction, especially after it has been passed a few times. And however gently passed, and however asepticized, by frequent passage, some irritation of the bulbo-membranous junction and of the prostatic urethra will, after a certain time, manifest itself. When this occurs cystitis is kindled, or having preexisted becomes exalted, and fever is superadded. Sometimes there is a rigor, but not usually, the fever being of the continuous kind. The urine becomes abundant, very pale and of low density, full of organisms, is faintly alkaline, fetid in smell and highly putrescible. No pain is complained of except dull headache; the patient is drowsy and sleeps a great deal, loses appetite, and becomes forgetful and apathetic. The tongue is coated and inclines to dryness. These symptoms may become more and more pronounced until death closes the scene, or they may last three or four weeks and slowly disappear as the patient gradually recovers, and they may be complicated by abscess in or around the prostate in either event.

The irritating agency in such cases is, I believe, mainly the unremitted catheterism, for I have found puncturing the bladder by the rectum with a discontinuance of the catheterism to be followed by speedy amendment. But the concurrent decomposition of the urine must also be regarded as a prime source of irritation, and the absorption of such tainted urine through surfaces abraded by the catheter, must be considered as the direct cause of the septicemic elements of the fever. A degree of uremia also plainly concurs, which increases to a lethal extent

in fatal cases, and this would first be due, I imagine, to the establishment of latent nephritis, as it is not a primary condition. Such a nephritis may be looked upon as a pathological accompaniment of the subacute septicemia, specially, perhaps, determined to the kidneys by the sympathetic relations of the bladder and particularly of the deep urethra, to those organs.

ADDISON'S DISEASE ASSOCIATED WITH GASTRIC ULCER AND PERFORATION OF THE STOMACH.—POST-MORTEM.

BY N. M. BASKETT, M. D., MOBERLY, MO.

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CRITICAL research, analysis and investigation have characterized the members of our profession for the last fifty years. Long study and constant labor have served to abolish many previously existing theories, and to solve many apparently profound mysteries. Still, much of medicine is dark and mysterious. Many of the fields of our profession are still seen as through a glass, darkly. Many interesting subjects have scarcely been elucidated; and the normal functions, as well as the pathological conditions of several organs of the human system, after patient and protracted investigation, still elude the piercing eye and the analytical brain, and retain their position on the confines of knowledge as veritable *terræ incognitæ*.

No organs have more puzzled the anatomist, the physiologist and the pathologist than those which are known as the ductless glands. Situated in the body in intimate anatomical association with important organs, whose functions have been well defined, it is difficult to believe that they perform an unimportant part in the work of the human economy. And this fact is the more apparent when we consider that the pathological conditions of these bodies almost universally exert a disastrous influence upon the vitality of the individual affected.

The suprarenal capsules of the kidneys are not exceptions to the principles here enunciated. Belonging to the ductless glands, their functions have not been defined. In close and intimate relation with the kidney, they possess an anatomical structure almost anomalous, or entirely so, in the human body. In size apparently unimportant, clinical facts manifest that the destruction of the organs is invariably attended with disastrous results. And still the character of the labor which they perform in health is almost entirely unknown, and the pathology of their disease, while frequently inspected and analyzed, is still doubtful.

In 1849 Addison announced the disease which bears his name. But few facts of importance have been discovered since then concerning it. A little more thorough knowledge regarding the changes occurring in the organs during the progress of the disease, and a slightly better classification of symptoms, are all the advancement of which we can boast since Addison's time.

Addison's description was a graphic one. The bronzing of the skin, the languor, weakness and inability to perform manual labor, the small compressible and irregular pulse, the pearly whites of the eyes, occasional nausea with vomiting, and the tendency to death from asthenia, were all delineated by a master hand.

It appears the capsules are intimately concerned in the excretion and removal from the system of some material whose retention is noxious to vitality. Whether they are anatomically associated with the sympathetic or glandular system, one fact is apparent, that a healthy performance of their labor is absolutely essential to health. The pigmentary deposit, if it can so be called, which ensues upon disease, manifests the presence of material which should be eliminated. It is possible that the retention of this substance in the blood so reacts upon the nervous system as to produce the asthenia which is such a marked symptom of the disease. Or it is possible that the capsules themselves are a storehouse of energy for the sympathetic system, and that the development of a pathological condition in them lowers the vitality of the sympathetic system, and prevents the performance of the vital functions at a proper stand-

ard. Vulpian states the blood of the suprarenal capsules gave special reactions to various tests. Addison believed the organs were connected in function with the sympathetic ganglia. Brown-Sequard showed that, by crushing the organs in the hare death could be produced; and Koelliker has advanced the theory that the functions of the organs are dual, that of a glandular organ and a part of the nervous system.

The nature of the disease is also a mooted question. Wilks considers it a special disease, probably inflammatory in its nature, always followed by certain results and attended with characteristic symptoms. Bristowe thinks it a cheesy degeneration of a tubercular nature, while Hartshorne regards it as a constitutional cachexia frequently associated with scrofula, particularly scrofulous caries of the vertebræ.

The complications and associations with other diseases are given by Wilks as vascularity or apparent hypertrophy of the intestinal canal. "Brunner's glands in the duodenum and the solitary glands in the ileum and colon," says he, "have been found more than usually prominent in morbus Addisonii." "Occasionally tubercle has been met with in the lungs, and this has confirmed the opinion in the minds of some that the disease is scrofula; but it must be stated that the deposit in the lungs has generally been of the same nature as that in the capsules, the true nature of which has been the subject of discussion."

In a few cases caries of the spine has been found associated with the disease adjacent to the capsules. "In these cases," says Wilks, "the disease of the spine must be regarded as the older."

It will thus be seen that Wilks regards the condition as a disease separate and apart from all others.

A gentleman residing at Centralia, Mo., recently called upon me requesting my opinion concerning the nature of an affection which had manifested itself several months previously. There was persistent languor, weakness and disability to perform manual labor. The pulse was small and compressible, the whites of the eyes glistening and pearly, the appetite much impaired. The skin was bronzed, not as some writers say like the mullato, but more like the Indian. This condition had developed rapidly. There was marked tenderness over the region of the su-

prarenal bodies. There was occasional vomiting without much nausea. The asthenia was marked, though he presented no excessive evidences of anemia or wasting. To use his own words, "People say I look strong enough to work, and I suppose I do, but I feel utterly prostrated almost all the time." Palpation and pressure over region of liver, spleen and stomach, revealed no indication of any disease of those organs. The tongue was clean and healthy. Urinalysis revealed nothing abnormal in quality or quantity of urine. I diagnosed Addison's disease, placed him on Greenhow's prescription of chloroform, glycerine and iron, and sent him home without encouragement. I have not since heard from him.

During the month of January last, I was approached by a gentleman who desired to be examined for insurance in one of our assessment societies. This man was a tinner between 40 and 45 years of age, and had been constantly engaged in the labors of his trade for several years past. A few questions elicited the fact that two of his family had probably died from consumption, although he was not positive. I told him it would be necessary for him to inform himself more thoroughly about his family history before I would consent to examine him. He left, promising to do so, but did not present himself for examination again.

In a few weeks I heard he was dangerously ill from some supposed malignant disease of the stomach. I learned too that the physician in attendance had him sometime during September last, and had expressed the opinion at that time that there was probably some cancerous trouble in the stomach. The applicant had continued to labor at his trade up to the time within three weeks of his death. There was no history of hemorrhage or much vomiting, but a constant pain not of a very acute nature, in the gastric region. The disease was not sufficient to confine him to bed until about the first of March.

The condition progressed from bad to worse, until Friday, the 19th of March, when the applicant died. I learned then that subsequent to coming to my office, he had applied to the examining physician of another order for insurance, had been examined, and accepted as a good risk. During his examination, he had stated that he had learned that his relatives did not die

of consumption, and that there was no derangement of his digestive organs. He was admitted to the order during the month of February upon paying the initiatory fee and an advanced assessment.

A few days after admission, he sent for the physician who had diagnosed malignant disease of the stomach, stating he was worse and placing himself under treatment. He grew steadily worse until death, which occurred about five weeks after admission to the order.

He was insured for $3000 dollars, and his early death naturally caused considerable feeling amongst the members of the organization. The attendant physician during his last sickness, diagnosed "malignant disease of stomach and liver, and possibly kidneys." It was regarded by the members of the order as remarkably singular that the examining physician could overlook such a grave condition of disease. The examining physician stated it was impossible for the patient to have had any such disease at the time of examination, and if he had, the questions propounded had not been answered truthfully. The applicant was buried on the 21st.

Gossip and comment still continuing, the examining physician determined to have the body exhumed and an autopsy held. This was done March 25. The attending physician and the examiner for the order, were present. Drs. Irwin, Hickerson, and myself were requested to make the autopsy. Drs. Irwin and Hickerson did the cutting. I took note of the conditions found.

The cadaver was in excellent state of preservation. Corpse sallow, dark hue, wasted, anemic, cachectic, cheeks hollow. *Post-mortem* changes externally were venous stasis, well marked over abdomen, especially in right and left iliac regions; venous stasis also plain on dorsal surface of hands; but little fatty tissue discovered on abdominal section. Peritoneum pale, bloodless and healthy.

The costal cartilages were cut through, the sterum elevated and bent back exposing pleura, lungs and pericardial sac. A few ounces of dark, bloody serum were seen in posterior portion of thoracic cavity. Pleura healthy, no adhesions, bands, or inflam-

matory thickening. Lungs *in situ* a pale, mottled grey, perfectly healthy, with slight *post-mortem* congestion from settling of blood in posterior portion of lung. No tubercle or cavities; perfect vesicular crepitation on pressure. Pericardium pale pink, and healthy, but little fluid in pericardial sac. Ventricles of heart collapsed, and but little blood in auricles. Walls of heart thin, but atrophied only from general wasting of system. Heart cavities healthy. Great omentum pale and healthy, with very little fatty tissue. Spleen dark, slightly congested with venous blood; very slightly enlarged and somewhat friable. Liver normal in size, pale and healthy, with slight *post-mortem* venous congestion along the free border. Gall bladder full of healthy bile, and in a normal condition. Lesser omentum and intestines natural.

The stomach was found slightly congested and inflamed almost throughout entire extent. The walls were remarkably thin and wasted, the gastric tubules seemingly almost entirely destroyed. A suppurating chronic ulcer was found on the posterior surface of the cardiac extremity of the viscus, extending entirely through the posterior wall of the organ, about an inch and a half immediately below the point of entrance of esophagus. The esophagus was inflamed from point of entrance, about seven inches above. Pus covered the mucous membrane of the stomach throughout, giving the tissues a greenish yellow hue. About two tablespoonfuls flowed from the ulcer when the organ was removed.

The right and left supra-renal capsules were found in the condition characterized by Wilks as the third stage of the disease, and which I here append as more graphic than any words of mine could be.

"At a still later period, the whole of the originally formed material may be changed into a yellow substance, and now it is that it presents the ordinary appearance of a mass of yellow tubercle. During this time the whole organ shrinks and becomes reduced to about its original dimensions." "In many cases, a still further change ensues, and the solid material becomes converted into a creamy or pus-like fluid, so that when the capsule is cut through, this may escape just as in opening an abscess."

Both capsules were in this last stage of the disease, the right more markedly so than the left. As my notes say, "the capsules were found in a condition of pustular degeneration, yellow and semi-liquid in appearance, and entirely degenerated."

Examination of right and left kidneys showed them to be healthy. There was no examination of the bladder, as no disease of that organ was suspected. The condition found will probably result in an effort on the part of the order to prevent the payment of the insurance. The examining physician refuses to recommend the payment of the insurance, and considerable feeling exists amongst members of the organization concerning it.

A careful research of the literature of the subject fails to reveal any recorded cases of gastric ulcer associated with Addison's disease, or vice versa. Aitkin, Bristowe, Wilks, Pepper and Watson, are all silent concerning such a combination of diseases. In Hartshorne, Dr. Austin Flint is quoted as saying, "that degenerative disease of the gastric and intestinal tubules is the cause of anemia so prominent in this affection. It is unquestionable that gastric disease and ulcer had existed for some months in this case, and it is probable that the ulcer was the immediate cause of death. But no inflammation had been produced in the omentum or surrounding organs by the perforation of the ulcers.

Hartshorne says the "disease is fatal always at last. Average duration, about fifteen months," Wilks that some cases of the disease are as brief as six months, and an average of about one and half years will cover the duration of the disease. The mode of death is asthenic, the patient becoming weaker and weaker, diarrhea sometimes ensuing, sometimes convulsions or coma, sometimes the patient remains in the lowest state of vitality for weeks, and then suddenly dies. Life lingers like a flickering flame and then suddenly expires.

The larger number of cases of Addison's disease occurs in men; the larger number of gastric ulcer in women. Remedies recommended for the former condition are few and not considered to possess much virtue. The favorite prescription of Dr. Greenham was chloroform, glycerine and iron.

Some facts of an interesting nature may be gleaned from this autopsy. First, the association of Addison's disease with gastric ulcer. Second, the possibility of the cachectic hue when associated with derangement of the stomach, being mistaken for cancer. Third, the fact that the asthenia and prostration are not always sufficient to prevent the regular discharge of manual labor. Fourth, the possibility of intercurrent disease obscuring the symptoms connected with Addison's disease. Fifth the possibility of overlooking a very grave lesion or combination of diseases when insuring an applicant; and lastly, the tendency of individuals to conceal grave and mortal conditions when pecuniary considerations are involved, when preparing to "shuffle off this mortal coil."

EXCISION OF THE OS CALCIS.

BY FRANK J. LUTZ, M. D., *Surgeon to the Alexian Brothers' Hospital, Lecturer on Clinical Surgery in the St. Louis Medical College.*

[*Read before the St. Louis Medical Society*, Feb. 27, 1886.]

OF the bones forming the arch of the foot, the calcaneum is most frequently the site of disease, and, in marked contrast with its fellows, inflammatory conditions, when they have their origin in the bone itself, do not, as a rule, extend to the neighboring osseous structures.

The frequency of ostitis of the os calcis is, no doubt, attributable to its anatomical position and structure. It is the largest and most exposed of the tarsal bones, and forms the posterior pillar, and is the main point of support of the arch of the foot, and as such is called upon to sustain the entire weight of the body, whereby its comparatively delicate cancellated structure is frequently subjected to contusion. In addition, it is the point of insertion of the powerful tendon of the calf of the leg—the tendo Achillis—the muscles of which during the performance of

their various and manifold functions, exercise a great and continuous strain upon the bone. Necrosis and caries, following ostitis, are the usual indications for excision. Circumscribed inflammatory foci may be removed by free gouging, provided the individual be not tubercular, for if the inflammation of the calcaneum be but "the local expression of the constitutional condition," to use a well worn phrase, then excision holds out the only hope of success. Nor will anything short of total excision result in cure, when the bone is involved in its entirety. Gunshot wounds, compound comminuted fractures and more rarely malignant neoplasms may require removal of the bone *in toto*.

In dealing with a case of destructive ostitis of the calcaneum, the surgeon should bear two points in mind. First, that he is called upon to remove an important, I might say essential, part of the foot; and second, that in doing this, he should endeavor to preserve and restore as far as possible the usefulness of the foot.

This brings us to the consideration of the methods of removing the bone. We have the choice of two. The one concerns itself with the removal of the bone, regardless of its regeneration; the other considers the restoration of the bone *the* thing to be aimed at, and by it an effort is made to remove the bone subperiosteally, or, in other words, to preserve as much of the periosteum as possible, in order that from it a new bone may be formed.

Whilst it is doubtful whether, even in those cases in which the sub-periosteal method is employed, the high standard of Ollier will be reached, who considers only those results as good in which the regeneration of the bone is so perfect that the contour of the foot is almost natural, and in which there are no functional disturbances, yet it requires but to enumerate the advantages of the sub-periosteal method over the other to be convinced of its superiority in all cases where it is applicable.

Simple excision of the calcaneum is followed, when we succeed best, by shortening of the leg, disappearance of the pedal arch; a depression takes the place of the tuber calcanei; the antero-posterior movements of the foot, which occur in the tarso-

calcaneal articulation, are very limited, if not impossible. Dependent upon the new point of insertion of the tendo Achillis, will be the extent to which the foot can be extended; the higher up the insertion the more limited the extension.

It goes without saying, that these disadvantages exist only to a limited degree when the bone is reproduced wholly or in part.

In the subperiosteal method the tendo Achillis is not cut off; by preserving its union with the periosteum of the os calcis, its function continues when the bone is reproduced. Then, too, its preservation assists in the formation of the tuber calcanei, when otherwise the periosteum would be drawn forward. The talo-calcaneal articulation is not destroyed, the antero-posterior movements of the foot are restored.

According to Ollier the most favorable ages for the reproduction of the bone are between thirteen and twenty. After the thirtieth year regeneration is less liable to occur, and it requires a certain amount of irritation, such as is occasioned by the movements of the foot, the pressure of the padded shoe, etc., to excite bone-reproduction.

Langenbeck obtained the most brilliant results in children from two to nine years.

The time necessary for the production of the new bone varies from three to eight months, and sometimes several years. Vitiated constitutional conditions interfere with bone regeneration.

The deductions as to mortality and results, drawn by Ashhurst (International Encyclopedia, vol. II., p. 53;) from the statistics heretofore published, will hardly guide the surgeon in the choice of method, for the operations were made, so far as the record shows, before surgery was familiar with the more perfected methods of wound treatment; and before the subperiosteal method is pronounced the more dangerous and the one yielding less favorable results; other and more accurate figures must be placed before us.

These scattering remarks were suggested by the following case, of which I have the pleasure of exhibiting the specimen and a photograph showing the result. No hopes were entertained that the bone would be reproduced on account of the age of the patient and the extensive destruction of the periosteum, hence

the sub-periosteal removal of the carious bone was not attempted, but simple excision was performed. The patient recovered with a useful foot.

On the 19th of July, 1884, H. B., a German laborer, aged 37 years came under my care. He is a slender built individual, six feet in height, weighing about 130 pounds, with no inherited or acquired constitutional taint, and claims to have always enjoyed good health until four months ago, when pain and a swelling in his heel, which afterwards opened, interfered with his working. After a short time the entire right foot and the leg up to its middle became involved in the tumefaction. On examination it is found that the whole right foot and lower half of the leg are greatly swollen and pit on pressure. The antero-posterior movements, whilst possible to a limited extent, give great pain. Posteriorly and on both sides of the heel are openings which permit the probe to be introduced to the necrosed bone.

The foot having been ordered elevated for a week, the tumefaction subsided to such an extent that it could be clearly made out, that the os calcis was the only bone involved, and excision was advised, which was assented to.

In the removal of the bone the operation suggested and practised by Mr. Erichsen was employed. The incision was commenced an inch behind the tuberosity of the metatarsal bone of the little toe, to avoid the tendon of the long peroneus muscle and carried back around the heel and along the inner side of the foot, terminating opposite about an inch short of the point of beginning. The horse shoe shaped flap was then raised from the os calcis and turned forward. Next a vertical incision was made over the tendo Achillis, terminating in the horizontal one, and the integument and subcutaneous tissues reflected to either side and the connection of the tendo Achillis with the bone severed. The interosseous ligament which unites the bone to the astragalus was then divided by entering the knife posteriorly and passing it along the upper surface of the calcaneum. Pressing the bone downwards, its lateral attachments were severed, and finally, the only remaining bond of union, the calcaneo-cuboid ligaments were cut.

Interrupted sutures, drainage tubes, iodoform and absorbent cotton, and the foot and leg placed in an immobilizing splint completed the dressing. The patient made a good recovery. The

leg, measured from the head of the fibula to the sole of the foot, is three-fourths of an inch shorter than its fellow; the foot is flat, the arch being robbed of its posterior pillar, and a soft, doughy mass has replaced the calcaneum. He walks comfortably with a padded shoe.

By examining the specimen and comparing it with the normal bone, it will be seen that the entire bone was inflamed; its inferior third is destroyed. The bone itself is flattened vertically, brought about no doubt, by the patient's walking on it, after it was inflamed and softened.

Both the patient's legs are also the site of leucoderma. The transverse cicatrix on the posterior suface of the right leg is the remnant of an old wound.

INOCULATION AGAINST PHTHISIS.—Prof. Verneuil believes that by some plan of inoculation analogous to that employed by Pasteur against rabies, it will be found practicable to prevent the development of phthisis after the disease has already been implanted in the economy. He has started a fund to be expended in the experimental study of tuberculosis.

DISINFECTANTS—DEODORANTS—ANTISEPTICS.—A disinfectant is an agent capable of destroying the infective power of infectious material. Agents which merely mask unpleasant odors are deodorants, and their purpose is not the destruction of disease germs. Antiseptics are agents having the power to arrest the process of putrefaction.—*Com. on Dis. of A. P. H. A.*

SYRIAN PROTESTANT COLLEGE.—This institution is located at Beirut, Syria, was incorporated by the Legislature of New York State in 1863, and is under the general control of a Board of Trustees residing in that State. It is the aim to give a thorough literary, scientific, medical and pharmaceutical education. The instruction is given in the English language. The course of study in the medical department extends over four years and is very thorough.

CASES FROM PRACTICE.

SURGICAL CASES TREATED AT THE POLYCLINIC AND HOSPITAL OF THE ST. LOUIS POST-GRADUATE SCHOOL OF MEDICINE.

REPORTED BY L. T. RIESMEYER, M. D., Assistant to the Chair of Surgery.

Since the opening of the St. Louis Polyclinic until the first of last April, two hundred and twenty-four patients were treated at Prof. Tuholske's surgical clinic; of these seventy-eight, nearly one-third, were afflicted with diseases of the genito-urinary organs. I shall endeavor to describe some of the rarer and more interesting cases observed and treated during that period.

RESECTION OF THE ELBOW-JOINT FOR SYNOVITIS CHRONICA GRANULOSA.

Mr. K., æt. 29, joiner, married, born in Germany, of healthy family, was always healthy until five years ago, when he noticed pain in the right elbow-joint. Later the joint began to swell, and the pain increased, unfitting the patient for his occupation. He had never received any injury. About six months ago he came to the polyclinic. The joint was found to be very much swelled, edematous and reddened, the surface-temperature elevated; at some points fluctuation existed, muscles atrophied. There was pain on pressure on both sides of the olecranon process, and over the external condyle. Voluntary motion not possible; passive motion only to a very limited degree and causing pain. Although the case had been sent to the clinic for resection, it was decided by Prof. Tuholske to try a more lenient treatment first, considering that the average results obtained by this operation are not very encouraging. Various methods of treatment were resorted to. For a couple of weeks inunction with mercurial ointment was used, combined with slight pressure by a moderately tight bandage, at the same time putting the arm at rest by a splint. After this the joint was wrapped up in

absorbent cotton, moistened with a three per cent solution of carbolic acid, the arm immobilized and the dressings removed every two days. At intervals of three or four weeks the thermo-cautery was applied all around the joint, and once every week passive motion was used. While under this treatment the elbow seemed to improve, pain and swelling becoming less and mobility increasing, yet it was plain that ultimate recovery could not ensue. As a last resort before resection, Hueter's method of injecting a two per cent solution of carbolic acid into the joint was given a trial. However, this author used the injections only in the early stages of the disease, and recommends an early resection on account of the danger of a general tubercular infection. While the inflammatory symptoms, which at this time had again increased, were checked to some extent by these injections, it was not thought safe to temporize any longer, and the resection was made by Langenbeck's method.

The amount of destruction observed, when the joint was laid open, had not been anticipated. Not only were the synovial membrane, cartilages and ends of humerus and ulna destroyed by fungous growths, but the caries, due to the advancing granulations, had excavated the end of the humerus longitudinally for about two inches. The fungous masses and the diseased portions of bone were removed; the humerus was resected above the condyles, and the remaining cavity, the result of the caries curetted. After controlling the hemorrhage, the wound was irrigated with a one pro mille solution of corrosive sublimate, and drainage-tubes introduced at right angles to each other, for which purpose an additional cut had to be made a little to the inside of the internal condyle. The wound was sewed and dressed antiseptically, using iodoform and absorbent cotton, moistened with a one pro mille solution of corrosive sublimate. The arm was then padded with absorbent and sheath-cotton, and supported above and below the joint by leather-splints, moulded to the arm. Additional support was secured by paste-board splints having an opening at the site of the joint. Besides these a metal suspension-rod, bent upward at its angle, to leave room for the joint, and starched gauze bandages were used to secure immobility. The arm was thus immobilized at an obtuse angle, and suspended in this position for about four weeks. The dressings were removed every three to five days, according to circumstances. Immediately after the operation, as well as later, the patient could move all his fingers freely, showing that the ulnar nerve had not been injured.

The wound all along the cut healed by first intention. The first few days after the operation there was a rise of temperature, varying between one and one-half and two degrees Fahr.; later, the temperature became normal. When seen last, which was about April 5th, the wound was still suppurating. The after-treatment is now attended to by the family physician, and we have not seen the patient since the latter date.

DEVELOPMENT OF EPITHELIAL CANCER FROM LUPUS EXULCERANS.

Mr. B., born in Texas, æt. 24, single, strong and healthy looking, of healthy parentage, had, when presented at the surgical clinic, a few spots of a tubercular eruption, red and infiltrated, on both cheeks, presenting all the characteristics of lupus vulgaris nodosus; while the left wing of the nose was tumefied, fissured, cracked and ulcerating. On microscopic examination, the tumor, as had been suspected, turned out to be an epithelioma. The skin immediately surrounding the ulceration, showed the same nodular appearance as the eruption on the cheeks. The observation that lupus exulcerans may pass into epithelial cancer is not new and has been made by Hebra, Volkmann, Lewin and others. The operation was intended to be made in two stages. First, removal of all diseased tissues; second, after the wound had healed, flap operation to cover the defect. The first part of the operation was done immediately after the diagnosis was certain. After plugging the posterior nares, the left outer wall of the nose up to the nasal process of the superior maxillary bone and the turbinated bones were removed. Towards the right, the cut passed a little outside of the median line; the septum remained. After removal of all suspicious tissue with the knife, curette and thermocautery, the wound was dressed with iodoform and absorbent cotton, moistened in a three per cent solution of carbolic acid. In the after treatment, iodoform ointment was principally used as a dressing; lactic acid being applied freely to places where a return of the disease was suspected. The healing process advanced slowly; it taking five or six weeks before cicatrization was complete. Up to February, four months after the operation, there has been no sign of a return of the disease. Since that time, we have not heard from the patient, who intended to return to the clinic, and have the looks of his nose improved by a plastic operation. It must be added that no accessible lymphatic glands were enlarged.

DEVELOPMENT OF AN EPITHELIAL CANCER FROM LUPUS ERYTHEMATOSUS.

Mrs. H. æt. 65, born in England, has an ulcerating tumor of the size of a hen's egg, with an uneven, fissured surface, in the right mamma, below and a little outside of the nipple. Surrounding the the tumor, the skin from the third to the sixth rib, and from axillary line to sternum, on the right side, is erythematous, not infiltrated, excepting the immediate surroundings of the tumor, and has an abrupt border. Part of the surface is covered with white closely adherent scales. At some places, a few tubercles the size of a pin's head, are noticed. A similar eruption, but much less extensive, is noticed on the left side of the thorax and another on the back, over the seventh and eighth dorsal vertebræ. Axillary glands are not enlarged.

The patient first noticed redness of the skin on the right side of chest about thirty years ago; it began as a small tubercle, gradually enlarging from centre to periphery. The ulceration began six months ago. The above mentioned tumor formed since that time. Diagnosis: Epithelial cancer.

The growth with a good deal of the surrounding tissues was removed, so that a wound surface, the size of a hand, remained. The wound was left open and dressed with iodoform and carbolized cotton. The patient is doing well, never had fever, no sign of any return of the cancer.

SARCOMA OF THE THORACIC WALL.

Miss B., æt. 19, born in Germany, noticed, a year ago, a small tumor on the right side over the sixth rib, gradually growing larger and becoming very painful. The tumor had been excised twice, but returned. On the 26th of December, 1885, patient came to the Polyclinic, when a smooth tumor, the size of a hen's egg, of a bluish-red color, not ulcerating, was noticed a little outside of the axillary line, connected with the sixth rib. Skin immovable over the tumor. Diagnosis: Osteosarcoma. The tumor was excised. The tissues at some places removed down to the pleura costalis and the bone curetted. The wound was left open, dressed with styptic cotton, and later with iodoform. A day after the operation, the patient complained of incontinence of urine and a constriction around the abdomen, and was unable to move her legs; sensibility in lower extremities diminished. The paraplegia may

be explained either by a myelitis or the formation of metastases. Patient was removed from the wards of the clinic and died a few days later. The most interesting feature about this case is the extremely rare occurrence of sarcoma of the chest wall.

OSTEO-CHONDROMA OF THE FOURTH METATARSAL BONE.

Mr. G., cigar maker, æt. 29, noticed two years ago a small lump, size of a bean, on the plantar surface of the fourth toe of the left foot. The same increased and decreased in size alternately, until lately, when it grew more rapidly and became very painful. When presented to the clinic the tumor had the size of a hickory nut, and a shining blue skin which was not movable over the tumor. It was removed with the knife and curette and dressed antiseptically. It consisted of a cartilaginous substance, with small excavations containing a glairy semi-liquid substance. At some places were hard, bony deposits. On microscopic examination it was found to be an osteochondroma with myxomatous degeneration.

Two weeks after the removal of the tumor the wound had cicatrized, and the patient had no more pain.

EPISPADIAS PENIS.

Mr. M., æt. 19, has a cleft penis up to within an inch of symphysis pubis, the cleft opening at the inferior surface. The corpora cavernosa are, as usual in this malformation, short and ununited; the penis is, as far as the split extends, broad and flat. The large triangular redundant flap of foreskin, at the base of the glans, which is one of the characteristics of epispadias penis, is wanting in this case; the patient being a Hebrew it has been removed. In Thirsch's plastic operation this piece of foreskin serves to cover part of the defect, and persons with this malformation should not be circumcised. As a first step in the operation the glans penis was to be united, and for this purpose the external two-thirds of the cleft were denuded and brought together by cat-gut sutures. During the healing process the urine was emptied with a catheter through the split behind the glans. Union throughout by first intention was the result. Although the operation of simply bringing together the denuded surfaces behind the glans, has never been successful; this method was given a trial, failing entirely. For the third time it was intended first to make an opening into the bladder through the perineum by which the urine could escape, and

then try to unite the surfaces; taking the precaution of making two lateral longitudinal incisions to relieve the tension. But the shaking and trembling of the patient, who of course, was chloroformed, prevented the accomplishment of the first step, the establishment of a perineal vesical fistula. The rest of the operation was completed as projected, but no union took place. The patient will again be operated by Thirsch's method of securing flaps on each side of the margins of the cleft and, if a urethral fistula shall be established first, with an infinitely better prospect of success.

EPISPADIAS IN A FEMALE.

Miss H., æt. 22, came to the clinic to be treated for incontinence of urine, from which she had been suffering from childhood. An opening three-quarters of an inch in diameter was found in front of the vagina, leading directly into the bladder; the margins of the opening were reddened and inflamed; vagina and uterus normal; clitoris and mons Veneris divided by the aperture: no cleft in the symphysis pubis. The surroundings of the vulva and inner sides of the thighs were reddened, emitting a urinous odor. This case was lost sight of and could, therefore, not be operated upon.

Epispadias in the female is a very rare occurrence; C. Schroeder, of Berlin, mentions in his work on gynecology two cases, on which he operated successfully. The question regarding the manner of development of this malformation, is not yet settled. According to Schroeder the lesser degrees are probably formed by the allantois not rupturing at the proper time, and bulging forward at the normal site of the urethra, between the two halves of the vulva; thereby preventing the formation of the urethra as well as the closure of the front part of the vulva.

ARTHRITIS SYPHILITICA.

Mr. C., æt. 21, porter, has always been healthy until three years ago, when he had a sore on the penis several weeks after having had intercourse. He then took medicine, which produced salivation. Never had any eruption on the skin nor sore throat. On examination the inguinal, cubital and post-cervical glands were found to be enlarged; also the distal end of the left radius, the crests of the tibiæ and the fifth metacarpal bone of the right hand were enlarged, the latter throughout its whole extent. The left elbow-joint and both knee-joints were swelled and painful on pressure and motion.

Passive as well as active motion of the left elbow much impaired. Patient limped and complained of nocturnal pain in the affected joints and bones. The treatment consisted in large doses of iodide of potassium, forty to sixty grains three times a day. After having been a week under this treatment, the patient walked perfectly straight, the affected joints were no longer swelled nor painful, and their mobility entirely restored; the bony enlargements had much decreased. Interesting in this case is the epiphyseal enlargement of the radius, syphilitic enlargements of the epiphyses being very rare. There was no sign of rachitis. Another interesting feature is the arthritis, on account of the extreme rarity of syphilitic joint-affections. Rheumatism was excluded by the history of the case. Zeissl, of Vienna, says in his work on syphilis, that, while at his clinic a thousand cases of syphilis are treated every year, this period sometimes passes without one case of syphilitic joint disease being among them.

HYGROMA BURSÆ CARPI.

Mrs. K., æt. 30, has had a painless, fluctuating swelling in the palm of her right hand, and another larger one, above the wrist-joint. The swelling had been treated unsuccessfully for a year by counter-irritation, rest and pressure. When examined at the clinic, a fluctuating tumor, size of a hen's egg, was noticed above the annular ligament, communicating with a flatter swelling in the palm of the hand, corresponding in extent to the bursa carpi. By applying pressure to one of the swellings, the other would bulge out. A distinct crepitation, due to corpora oryzoidea, small white bodies, consisting of coagulated fibrine, which have, as is well known, received this appellation from their frequent similarity to grains of rice. It was due to these rice-bodies that aspiration of the bursa was unsuccessful. A trocar was used with some success, and a thick, synovial fluid, containing a number of fibrinous bodies, removed. The cannula, however, did not seem large enough to let all the bodies pass, so that part of the contents of the bursa remained, and either a large trocar will have to be used, or the bursa must be inclined under anticeptic precautions, which has been done successfully by a number of surgeons.

ULCUS SERPIGINOSUM SYPHILITICUM.

Mr. K., æt. 30, married, acquired syphilis twenty years ago, the symptoms having been kept down by anti-syphilitic treatment until

a year and a half ago, when an ulceration appeared over his right hip, healing again under treatment. Some months ago ulceration again occurred in the same region and spread rapidly. When the case was seen at the clinic the whole lower portion of the back, from the tenth rib downwards, presented several large, crescentic or kidney-shaped, unhealthy looking ulcers, with elevated, undermined, livid margins, and covered here and there by grayish-white membranous deposits. The treatment consisted of large doses of iodide of potassium and application of the thermo-cautery to the unhealthy granulations, the membranous deposits, and especially to the undermined margins; then dressing with iodoform ointment. While after two weeks' treatment a decided improvement had taken placer the patient left the clinic and the case was lost sight of.

CLINICAL THERMOMETERS.—The lastest device in the manufacture of clinical thermometers is in the form of a small watch or locket with a hand which indicates the temperature. Its action depends upon the expansion or contraction of a metallic tube filled with a highly sensitive fluid. It is said to be very delicate, accurate, and much less liable to accident than the ordinary glass tube instruments in common use.

PRIZE ESSAY SUBJECT.—Préciser par une Série d'Observations s'il existe un Traitement Abortif de la Syphilis Confirmée. (To determine by a series of observations if there exists an abortive treatment of confirmed syphilis) is the extraordinary subject chosen by the Paris Academy of Medicine for a prize essay this year, as reported by the *Lancet*.

SCARLET WRAPPERS are now required by the laws of Georgia, Florida, Kentucky and Tennessee to be used upon bottles or packages containing morphine. The Kentucky law requires that the word "poison" and the "skull and cross-bones" must appear upon the label in addition to the word "morphine" in white letters.

KNIGHTHOOD DECLINED.—M. Savory, the President of the Royal College of Surgeons, has declined the title tendered him by the British premier.

EDITORIAL.

THE MALARIAL GERM.

Dr. Geo. M. Sternberg, in a paper published in the *New York Medical Record*, May 1 to 8, gives a summary of the most recent observations with regard to the etiology of malarial diseases. It will be remembered that the result of his investigations carried on at New Orleans under the direction of the National Board of Health, led him to doubt the truth of the conclusions of Klebs and Tommasi-Crudeli who regarded the bacillus malariæ as the active agent in the causation of malarial disease.

At the time when he prepared his volume "Malaria and Malarial Diseases," published as one of the volumes of Wood's Library of Standard Medical Authors for 1884, he did not feel prepared to place any greater confidence in the observations of Laveran and Richard.

Laveran's discovery has since been confirmed by the Italian observers, Marchiafava and Celli, who have demonstrated their results to Dr. Sternberg in a recent visit to Rome.

It is claimed that in the red blood corpuscles of persons suffering from malarial disease are to be observed by proper preparation hyaline masses containing one or several pigment granules, these last being the result of a change in the hemoglobine of the red corpuscles, which are destroyed during the febrile attack. The same hyaline masses have also been demonstrated without any pigment granules "showing that while the pigment may be secondary and a result of their presence, they are not dependent upon the presence of pigment."

Dr. Sternberg is disposed now to accept the view that these hya-

line bodies are parasites which invade and destroy the red blood corpuscles in an attack of malarial fever.

Dr. Sternberg has described in his former writings on malaria and its cause, four forms of parasite which are found in the blood of patients with malarial disease.

The main interest, however, is centered in this hyaline mass, which he designates as body No. 2. These elements are those most frequently encountered in the blood of malarial patients. They are spherical, vary in size from one micro-millimetre to ten or eleven micro-millimetres in diameter, and seem to be made up of a very transparent hyaline mass enclosing rounded granules of a black or deep red pigment which vary in number, and which may or may not be disposed with some regularity in the form of a crown.

Sometimes these pigment granules seem to be violently agitated as if particles of solids in a liquid in ebullition.

In the bodies No. 2, of small volume, the pigment granules are immobile, while in those of average and large size, they may almost always be seen to move.

These spherical bodies No. 2, are sometimes free in the serum, sometimes attached to the red blood corpuscles. Those of small size are often grouped, four or five or more together. One or several may be attached to a red blood corpuscle. Gradually, in some cases, the corpuscles become more and more pale until it can no longer be distinguished except by its contour; its color has disappeared and its transparency is the same as that of the parasite, which augments in volume in proportion as the corpuscle disappears.

While this body No. 2 is described as spherical, its form is subject to material variation under the influence or movements of ameboid character. Sometimes the body may be seen to undergo a process of segmentation, and again three or four small masses may be seen to unite into one larger one.

Besides these bodies, there are sometimes distinguished filaments in active movement, and which impart to the neighboring blood cor-

puscles very rapid and varied movements. These "mobile filaments," Dr. Laveran regards as the adult state of the malarial microbe.

Laveran at first named the parasite which he had discovered, the oscillaria malariæ. In his recent work, he has abandoned this name and says that he does this the more willingly, for the reason that the oscillariæ are today classed among vegetables, while the malarial parasite seems to him to belong to the animal kingdom. Dr. Sternberg thinks it evident that this organism does not belong to the bacteria, but rather to the protista, which, according to Haeckel's classification, includes a large number of the lowest forms of life, which are neither distinctly animal nor vegetable, but intermediate between the two.

Dr. Sternberg believes that the etiological relation of this blood parasite to malarial disease is rendered strongly probable, not only by the constant result of microscopic examination, but by some inoculation experiments recently performed by Marchiafava and Celli.

These observers have also found that the parasites rapidly disappear from the blood of patients suffering from malarial disease, upon the administration of quinine, and when a solution of quinine is added to blood drawn from the veins of such a patient, the mobile filaments soon cease their characteristic movements, and the parasites assume the "cadaveric form"; and the observations so far made with regard to the action of these micro-organisms corresponding closely with the results of clinical study of malarial disease.

A postscript to Dr. Sternberg's paper, states that he was able March 24, to verify in a specimen of blood taken from a patient suffering from intermittent fever, in this country, the presence of the same micro-organisms which he had seen in Rome and which had been demonstrated to him by Marchiafava and Celli.

THE JOURNAL OF NERVOUS AND MENTAL DISEASES now appear monthly.

A COLD IN THE HEAD.

Dr. David Lee regards the affection which is commonly known as "a cold in the head" as a neurosis having to do specially with the vaso-motor system. He recently presented his views on this subject to the Harveian Society, in a paper entitled, "The Neurotic Treatment of Catarrh."

After discussing with some detail the etiology and pathology of the affection, he describes, the mode of treatment which he has found uniformly successful in his own person, and with others when he was able to superintend the administration of the remedies.

The indications for treatment, according to his view, are to soothe the reflex disturbance of the central nervous system, to quiet the local congestion and hyperesthesia of the nasal mucous membrane, and to arrest the flux, if this has commenced.

He describes the method which he has adopted when he "takes a cold." He takes a full dose, forty to sixty grains, of bromide of potassium, which he repeats once or twice at intervals of six hours as necessary. He applies with a camel's hair pencil a four per cent solution of cocaine hydrochlorate to the nasal mucous membrane, especially to that covering the inferior turbinated bones. Tincture of belladonna in doses of fifteen minims in a little water every hour or two until there is some dryness of the throat, he uses to control the flux, if that has already become established.

THE AMERICAN MEDICAL ASSOCIATION.

The meeting of the American Medical Association, held in our city last month, has been pronounced by some of our confrères the most successful meeting in the history of the Association. The attendance was large, the Committee on Registration reporting not far from twelve hundred members on the roll, and the character of the deliberations both in the general sessions and the sections was satisfactory and creditable to the Association. In most of the

sections there were so many papers, and generally of such merit, that there was less time than would have been profitably employed for discussion. It will be a matter of necessity in order to secure the most profitable employment of the time at the disposal of the association to rigidly enforce the by-laws requiring members who intend to present papers to the sections to submit them to the chairman of the appropriate section thirty days prior to the meeting, in order that a selection may be made for reading to the section. This will facilitate the preparation of the programme and secure that the time of the members shall not be consumed in listening to papers of relatively little importance.

One advantage that the Committee of Arrangements were able to secure for the Association here was that in the Exposition Building there were plenty of rooms for the meeting of all the sections and the various committees without the necessity of going to other buildings at all. Everything was under one roof, a convenience which has never been afforded anywhere else, we are informed.

The Committee of Arrangements were able to make provision for the convenience and comfort and entertainment of the delegates from different parts of the country, such that we were assured by a delegate from New York that at no other city had the entertainment been so lavish and profuse in a public way as at this meeting. This testimony was the more gratifying, inasmuch as our experience has taught us that New Yorkers are apt to look rather depreciatingly upon whatever is done outside of the metropolis.

Much credit, and the thanks of the profession, are due to Mr. J. W. Lambert, of the Citizens' Committee, for efficient work in arranging for the public entertainments which were provided, and which were in all respects an eminent success.

The apprehensions which were in the minds of many, that a stormy time would occur when the committee should present their report with regard to the organization of the International Medical Congress, were happily disappointed. The clouds which threat-

ened a disastrous tempest were all quietly dissipated. The hopes which we expressed in our editorial of last month with regard to the spirit to be manifested by delegates in attendance were realized; and the Association has successfully passed through a crisis in its existence concerning which its friends had serious fears. The Committee of Arrangements, the Citizens' Committee and the local profession, have our sincere congratulations upon the success of the St. Louis meeting.

MODIFICATION OF FEHLING'S TEST FOR SUGAR IN URINE.—F. CRESSWELL asserts that a solution of copper sulphate in an alkaline solution of water and glycerine, instead of the solution of tartrate of sodium and potassium, makes a test solution which is permanent, not liable to decomposition, as the ordinary Fehling's test solution. Moreover uric acid will scarcely affect it, an additional advantage.

He prepares the solution as follows: Take about 35 grammes of copper sulphate, and dissolve it in 200 cc. of glycerine, and 100 cc. of water. Then add 80 grammes of sodium hydrate dissolved in 400 cc. of water and boil the whole for fifteen minutes, as most specimens of glycerine contain a small quantity of some substance which is incapable, at a boiling heat, of reducing an alkaline solution of copper. After boiling, distilled water is added till the solution equals one litre. This is then allowed to stand until clear.

It must be standardized by a solution of grape sugar of known strength for exact determinations, and is sure, if made as above, to require dilution. If intended only for rough clinical purposes, the above quantities may be diluted to 1250 cc. Ten cc. will then closely approximate the equivalent of 5 centigrammes of sugar.

The process of testing is the same as that ordinarily used with Fehling's solution. 10 cc. of the copper solution is put in a flask with 50 cc. of water and boiled, and the solution of glucose or the saccharine urine (which should not contain more than one per cent. urine generally requiring dilution to secure this), is slowly added from a burette, the contents of the flask being kept boiling until the original blue color of the solution has entirely disappeared. The quantity used must then have contained five centigrams of sugar.—*Brit. Med. Jour.*, March 27, 1886.

BOOK REVIEWS AND NOTICES.

THE COMICAL CURE-ALL. Merry Medicaments for use in all branches of the Medic and Chirurgic Art. Designed for Physicians as well as their Patients. *Cincinnati: Anton Bicker.* 8vo.; pp. 252; cloth.

A collection of ridiculous stories and jokes, relating to physicians, patients and pharmacists, some of them really amusing, some rather broad.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Volume the Third. Edited by J. EWING MEARS, M. D., Recorder of the Association. *Philadelphia: P. Blakiston, Son & Co.*, 1885.

This volume is another warrant of our expectation of good work and valuable papers from this Association. The several papers have already been widely read by the profession in the pages of various medical journals, and are here put in permanent form for future reference. Where all are of so much merit it may not be well to institute comparisons, but the two papers which have seemed to us of special value were those of Dr. Jno. B. Roberts, on Surgery of the Brain, and Dr. Senn, on Air Embolism.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE EAR. By OREN D. POMEROY, M. D., etc. Second edition. *New York: D. Appleton & Co.*, 1886. 8vo.; pp. 413; cloth. (St. Louis: J. L. Boland, J. H. Chambers & Co.)

Dr. Pomeroy has given the profession in this compact book the sum total of what is known respecting diseases of the ear. The typography is excellent, and the numerous woodcuts clear and distinct.

The author omits chapters on anatomy and physiology on the score that these subjects can be studied more exhaustively in books specially devoted to their consideration.

In the chapter on "Unclassified Diseases," the author gathers information on deafness due to syphilis, malaria, quinine, mumps, etc., a very interesting assemblage of observations.

Attention is very pertinently called to the uselessness of all the patent "ear drums," audiphones, and other money-catching contrivances foisted on the public, and advertised so extensively. T.

MIND IN NATURE. Volume I.. Large 8vo.; pp. 192; cloth. *Chicago: Cosmic Publishing Co.*, 1885.

The numbers of this journal bound together make a very attractive volume; and the papers published in its columns last year are well worth preserving in permanent form, being valuable contributions to the as yet exceedingly limited literature dealing with this department of research in a truly scientific manner.

A TEXT-BOOK OF NURSING. For the use of Training Schools, Families and Private Students. Compiled by CLARA S. WEEKS. *New York: D. Appleton & Co.*, 1885. 12mo.; pp. 396; cloth.

This is an admirable volume for the purpose indicated upon the title page. It is prepared by one whose experience well qualifies her to impart instruction. It has been adopted as the text-book by the St. Louis Training School for Nurses. They could not have chosen a better manual for the purpose.

E. M. N.

THE SEVENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. *Springfield. Ill.: H. W. Rokker*, 1885. 8vo.: pp. 613; cloth.

This volume contains much valuable information regarding matters of hygiene and vital statistics. The Illinois State Board of Health and its eminent sanitarian and able secretary, Dr. Jno. H Rauch, stand *facile princeps* in their respective fields of sanitary work, and the records of that work are valuable for reference to all having interest or responsibility in such work.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M. D., etc. Sixth edition, thoroughly Revised, with forty Illustrations. *Philadelphia: Lea Brothers & Co.*, 1886. 8vo.: pp. 867; cloth, $4.50; sheep, $5.50. (St. Louis: John Linahan. J. H. Chambers & Co.)

We believe this book, as now revised, to be the best work on the subject in the English language. Prof. Smith is an eminent practical teacher, not a visionary theorist; and what he writes is the result of direct observation at the bedside

The introductory chapters constitute an admirable essay on infant mortality, the weight and growth of the child, lactation, the quantity of food required, whether the mother's milk or artificial food. There are contained in this many details and particulars as to infant feeding, concerning which many recent graduates, and some whose graduation was not so very recent, are woefully ignorant.

The article on scarlatina is one of special value and interest. We observe that Dr. Smith fully accepts the theory of Koch with reference to the influence of the tubercle bacillus in the causation of tuberculosis.

The chapter on the diseasee of the circulatory system is less satisfactory than most other parts of the work. Endocarditis and pericarditis, which would naturally be looked for here, are considered, and not as fully as their importance would suggest, under the headings of rheumatism and scarlatina respectively. In fact the only condition which is discussed in this chapter is that of cyanosis which is considered very fully and ably.

A chapter of eighteen pages hardly affords opportunity for adequate consideration of the cutaneous diseases of infancy and childhood.

Still, when all is said that may be in criticism, this still remains in most respects the most satisfactory work on the subject with which we have met.

THE FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE BRAIN. By JOHN B. ROBERTS, M. D., etc. *Philadelphia: P. Blakiston, Son & Co.*, 1885. 8vo.; pp. 80; cloth; $1.25.

This little volume contains the paper on cerebral surgery which Dr. Roberts read before the American Surgical Association at the meeting of 1885, and to which we have already called attention in the notice of the volume of transactions of that association. It is an essay well worthy the thoughtful consideration of all surgeons.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By the late CHARLES HILTON FAGGE, M. D., F. R. C. P., etc., including a Section on Cutaneous Diseases, by W. H. Pye-Smith, M. D., etc.; chapters on Cardiac Diseases by Samuel Wilkes, M. D., etc., and complete indexes by Robert Edmund Carrington, M. D., etc. Vol. II. *Philadelphia: P. Blakiston, Son & Co.*, 1886. 8vo.; pp. 883; cloth.

We have already called the attention of our readers to the value of this work in noticing the first volume when that came from the press. In this second volume appear the same evidences of dili gent, painstaking research, of thorough familiarity with the clinical record of morbid processes in the hospital wards, and of pathological changes as demonstrated in the dead house by the scalpel and the microscope.

In this volume are discussed the following subjects, viz., Diseases of the Heart and Blood Vessels, Diseases of the Alimentary Tract,

Diseases of the Liver, Kidneys and Spleen, General Diseases of the Joints, Diseases of the Bones, Diseases of the Blood, Diseases of the Skin.

As indicated on the title page, the chapters on Diseases of the Skin, which had not been commenced by Dr. Fagge, were added by Dr. Pye-Smith, the editor of the work, while those on Diseases of the Heart and Blood Vessels which Dr. Fagge had not completed are here completed by Dr. Samuel Wilks, his senior colleague. The chapters on diseases of the liver, kidneys and spleen are full of interest to the general practitioner. The frequency with which diseases of the kidney are overlooked suggests the necessity of more thorough acquaintance with such works as this by the great number of practitioners.

We heartily commend this work to the consideration and study of our readers as one of the most valuable and reliable works on practice within their reach.

Inflamed Eggs.—Dr. D. F. Wright in an article of The Chemistry of Food and its Adulterations, says that there is a little known condition of the egg which considerably impairs its sanitary value as an article of food.

"Soon after it became the practice to transport eggs in large quantities and to long distances by railway trains, it was found on their arrival that adhesion had taken place between the membranes of the yolk and those of the skin, so that the yolk could not be turned out of shell unbroken. On examination by experienced pathologists this was found to be the result of true inflammation; the material of the adhesion was found to be precisely the same as that of the plastic exudation in inflammation of the lungs or bowels. It will at first sight seem absurd to speak of inflammation in such an unformed mass as an egg; but this arises from our forgetting that, structureless and unorganized as it seems, the egg, even when fresh laid is a living being and capable of disease from external causes. The cause of this inflammation is undoubtedly the shaking and friction from the motion of the cars, and it cannot but render tne egg more or less unhealthy, as the products of inflammation can never be as salutary in food as those of healthy growth.—*State (Tenn.) Board of Health Bulletin*, Feb., '86.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Brain Rest. By J. Leonard Corning, M. D., second edition revised and enlarged, with additional illustrations. New York and London, G. P. Putnam's Sons, 1885. 8vo.; pp. 135; cloth; $1.00. (Boland.)—Electricity in Medicine. By Ambrose L. Ranney, M. D., New York; D. Appleton & Co., 1885. 8vo.; pp. 147; cloth. (J. H. Chambers & Co.)—The Methods of Bacteriological Investigation. By Dr. Ferdinand Hueppe. Trans. by Hermann M. Biggs, M. D., illustrated by thirty-one wood cuts. New York, D. Appleton & Co., 1886; 8vo., pp. 218; cloth. (J. H. Chambers & Co.)—The Comical Cure-All. Cincinnati, Anton Bicker. 8vo., pp. 252; boards. (J. H. Chambers & Co.)—Reference Handbook of the Medical Sciences. By various writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by Albert H. Buck, M. D., New York City, Vol. II. New York, Wm. Wood & Co., 1886. 4to.; pp. 814; cloth. (J. H. Chambers & Co.)—Boylston Prize Essay. The Best Preliminary Education for the Study of Medicine. By Edward S. Stephens, M. D., Lebanon, O. Western State Print. 8vo.; pp. 45; cloth.—Practical Clinical Lessons on Syphilis and the Genito-Urinary Diseases. By Fessenden N. Otis, M. D., New York. Printed for the author. 8vo.; pp. 584; cloth.—Students' Manual of the Diseases of Menstruation. By John N. Upshur, M. D., New York and London. G. P. Putnam's Sons. 8vo; pp. 200; cloth.

PAMPHLETS AND REPRINTS.—Reflex Irritation from Hypertrophy of Labia Minora. By C. L. Gwyn, M. D. (Trans. Tex. State Med. Assoc. 1885.)—Annual Report of Superintendent of Cincinnati Sanitarium, 1185.—Report of case of Pelvic Abscess, with Autopsy. Remarks upon the Treatment. By H. T. Byford, M. D.—Esthetics of Medicine. By H. A. Cottill, M. D. (Am. Pract. and News. March 20.)—Eleventh Annual Announcement of Meharry Medical Department of Cent. Tenn. Coll.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the U. S. for 1885. Washington: Gov't Printing Office, 1885. 8vo.; pp. 179; paper.—Production and Prevention of Perineal Lacerations during Labor, with description of an Unrecognized Form. By Henry T. Byford, M. D. (Jour. of Am. Med. Assoc.)—The Utter Worthlessness of Sulphate of Quinine in the Treatment of Typhoid Fever. By Geo. M. Dewey, M. D., Keytesville.—Report of a Case of Cesarean Operation, with some comments. By Edward Wm. Jenks, Detroit, Mich. (Gyn. Transact, 1885.)—Clinical Lectures on Orthopædic Surgery. By A. Sydney Roberts, M. D., Philadelphia: P. Blakiston & Co., 1886. (Med. News, March 13-20. 1896).—Inebriety and Heredity. By T. D. Crothers, M. D., Hartford, Conn.: Case, Lockwood & Brainard Co., 1886. 8vo.; pp. 16; paper.—Typhoid Fever in Philadelphia. By Henry Leffmann, M. D.

REPORTS ON PROGRESS.

SURGERY.

Supra-pubic Lithotomy.—W. H. A. JACOBSON presented the following case to the Royal Medical and Chirurgical Society:

A laborer, æt. 19, was admitted into Guy's Hospital January 21, 1886. He had suffered with constant irritability of the bladder all his life, with marked symptoms of stone for five years, and with cystitis for a year. The lithotrite and sound gave evidence of more than one stone. For this reason chiefly lithotomy was preferred to lithotrity. Hypogastric lithotomy was made use of on account of the age of the patient, the long duration of the symptoms, and the great probability that the kidneys were impaired.

January 30, hypogastric lithotomy was performed, the bladder having been injected with ten ounces of water and the rectal bag introduced. The peritoneum was not seen. One stone was readily found on incising bladder, but prolonged search failed to find others. This was probably due to the mistake of keeping the bladder distended with fluid during the search, owing to which two other stones, small and light, escaped detection. No sutures in the bladder, or drainage-tube in the wound, or catheter in the urethra, were made use of.

Patient's recovery was somewhat retarded by an attack of pneumonia setting in the day after the operation. There was never any sign of extravasation or cellulitis. On the fourth and fifth days the wound and urine were distinctly ammoniacal, but this condition yielded to treatment. Two weeks after the operation, a large venous hemorrhage took place, and a few hours after a small calculus was removed from the wound; a few days later, another and smaller calculus escaped. On the twenty-third day urine was first passed naturally; by the fifth week micturition was normal.

It is evident now that owing to the small size of the largest calculus (only 300 grains), all might have been dealt with by lithotrity.

RICHARD BARWELL also contributed a paper on this subject, with reports of cases. He says:

A not unfrequent sequela of urethro- or vesico-vaginal lithotomy is an intractable form of vesico-vaginal fistula, of which several instances have been under the author's care; hence he rejected those methods in the following two cases:

CASE 1.—Rose A., æt. 9, admitted into Charing Cross Hospital, February 6, 1885. She was greatly emaciated, and was suffering with dribbling of urine and frequent micturition. A large vesical calculus was detected. On February 12 three ounces and a half of boro-glyceride solution, all that the bladder would hold, were injected, and Mr. Morgan passed a finger *per vaginam* to steady the stone and to prevent escape of fluid from the bladder by compressing the urethra against the pubes. The skin and linea alba, and then the thin fascia transversalis were incised. An exceedingly soft layer of fat separated the bladder from the abdominal wall; this was cautiously divided, the bladder opened and the stone extracted. The peritoneum did not come into view until the escaped fluid allowed the bladder to contract; the wall of that viscus, as also the abdominal wall, was sewn, a drainage-tube being placed between the two. The child suffered nothing after the operation, and by February 26 the wound had closed. The stone measured $2\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{1}{4}$ inches in its several dimensions, and weighed $2\frac{1}{4}$ ounces.

CASE 2.—W. W., æt. 60, but feeble and looking old, had frequent and copious hematuria, which was increased by the most delicate sounding; the prostate was enlarged. On sounding, a stone was found. Measurement in three directions gave $1\frac{1}{8}$, $\frac{13}{16}$, $\frac{7}{16}$ inches, but the condition of parts, and the possibility that a papilloma might also be in the bladder, induced Mr. Barwell to prefer supra-pubic lithotomy to either the perineal operation or lithotrity.

April 30.—Sixteen ounces of boro-glyceride solution were injected and retained by tying a tape round the penis. The skin, linea alba, and transversalis fascia being incised, the lower fold of the peritoneum was found to lie about three quarters of an inch above the margin of the pubes. The membrane was pushed without the slightest resistance from the front of the bladder. The man suffered no pain after the operation, the wound healed quickly, save a sinus just above the pubes, from which urine oozed in small quantity, and which did not thoroughly heal till July, the man remaining well in health.

The author points out that the high operation for stone has been too much neglected, and may well be used in cases other than those of exceptionally large stones. For children it is particularly well adapted, and he contends that for female children no other lithotomy should be practised. The danger of a permanent fistula is *nil*, his case (No. 2) being he believes, the longest persistence on record. The danger of urinary infiltration may be avoided with practical certainty by proper after treatment. In a properly conducted operation the peritoneum is safe—injection of the bladder will always raise it high enough, and as it is barely attached to that viscus it yields upward to the slightest touch of the finger. The author shows that distension of the rectum has a very small effect on the anterior peritoneal fold. He also points out that Petersen's experiments give unreliable results, and that Garson's table in reality supports his (Mr. Barwell's) views, and he details (in an appendix) fourteen experiments of his own in proof of his contention.

The Treatment of Intestinal Obstruction by Laparotomy.—DR. RANDOLPH WINSLOW reports a case of acute intestinal obstruction successfully treated by laparotomy. In commenting on the treatment Dr. Winslow expresses his opinion decidedly against any and all severe methods of attempting to overcome the obstruction whether by rough manipulations, or by rectal injections under strong pressure. On the other hand, he deprecates resorting to operation until a fair trial of medical means has failed to relieve the condition, and until it is reasonably certain that there is some mechanical hindrance to the passage of the feces, which will terminate fatally unless relieved by operation. For obstruction in the large intestine, colotomy would in many cases afford relief. For persistent obstruction of the small intestine, his preference is decidedly in favor of laparotomy in the linea alba below the umbilicus, under rigid antiseptic precautions, as being the most precise, scientific, and rational means of discovering the cause and seat of trouble, and of remedying it at the same time. Whilst not underrating the risks of laparotomy, he does not think an exploratory incision to be a more serious procedure than abdominal taxis, or enemata under heavy pressure, and he thinks it much more certain and reliable in its results.—*Am. Jour. of the Med. Sci.*, April, 1886.

Insanity Following Gunshot Injury to the Head: Cerebral Cyst; Aspiration; Recovery;—DR. CARLOS F. MACDONALD records a case which shows the following:

1. A lesion located anteriorly to that portion of the first frontal gyrus included in the centre marked 12 by Ferrier, and which is now regarded as the anterior boundary of the motor area giving rise to psychic derangement, and unaccompanied by motor or sensory disturbance, furnishes affirmative evidence, both positive and negative, of the correctness of the view held by a majority of modern neuro-physiologists, namely, that the motor and sensory areas of the cerebral cortex are not located in that portion of the brain lying anterior to the coronal suture.

2. That when not in a state of inflammation, the brain substance may be punctured with a fine, clean needle, with comparative immunity from danger or disturbance of function.

3. The certainty that recovery in this case was directly due to operation.

4. Cases of insanity dependent upon injury to the head, and accompanied, as they usually are, by mental irritability and explosions of temper, are, as a rule, so seldom benefited by drugs or the so-called moral treatment, that they have come to be regarded as incurable from the beginning. That the prognosis is bad in a considerable proportion of cases of traumatic insanity must be conceded; but it is equally true that a certain limited number may be cured, or, at least, greatly improved by timely surgical interference. Obviously, the cases which are most likely to be benefited by operative procedure are those of which the one reported is a type—that is, cases with depression of the skull, in which the location of the brain lesion can be determined with a reasonable degree of accuracy, the site of the lesion being such as to render the use of the trephine anatomically admissible.

By reason of the numerous and valuable contributions which have recently been made to our knowledge of neuro-physiology and the localization of cerebral disease, the practice of trephining for the relief of epilepsy resulting from injury to the head has been revived, and it would seem to be not unreasonable to maintain that the arguments advanced in favor of the operation for epilepsy would apply with even greater force to cases of lunacy depending upon similar causes.—*Am. Jour. of the Med. Sci.*, April, 1886.

A Vesical Calculus of Unusually Large Size Removed by Supra-Pubic Cystotomy.—WALTER RIVINGTON reported to the Royal Medical and Chirurgical Society, the following case:

Thomas Knight, æt. 61, entered the London Hospital, January 13, 1885. For sixteen years he had been troubled with symptoms of calculus. On examination per rectum, a large, round, smooth swelling was detected in the situation of the prostate gland. No stone could be detected with a sound. February 24, median urethrotomy for the purpose of exploration was performed. It was ascertained that the hard mass was not connected with the prostate, and that the bladder wall was pressed over by it to the right side. A sound pushed far back into the bladder at length struck a stone, which proved almost immovable when grasped by forceps. Under these circumstances it was decided to open the bladder above the pubes. A staff was introduced into the bladder and the usual incision made above the pubes. The end of a stone was now detected to project into the bladder, through an opening posteriorly. It was grasped with forceps, but could not be moved. Lithotrites were useless. The stone was therefore broken up with a chisel and mallet and extracted piecemeal. After the extraction, the wound in the bladder and that in the soft parts were separately sutured, with insertion of a drainage-tube, and a silver tube was inserted into the perineal wound. The patient rallied well from the operation. The supra-pubic incision was reopened on the 28th as there was evidence of the escape of urine through the bladder wound. The surface of the wound was sloughy, but gradually cleaned and filled up with granulations. March 21, the patient was allowed to be up for an hour in a wheeled chair. April 17, the opening into the bladder had closed by granulation, and with the exception of a fistula in the perineum, the patient had now recovered from the operation and was up daily. At the end of May, three months after the operation, he had a renewed attack of cystitis. His urine became ammoniacal, diarrhea ensued, and he died June 4. Permission was only obtained to inspect the abdomen. Suppurative nephritis of the left kidney was found, with cystitis of the bladder and of the large pouch in which the stone had been lodged.

After the operation the collected pieces of the calculus weighed 23 ounces avoirdupois. In its restored form it measures in circumference 13 inches by 10, in length 4⅜ inches, in width 3¼, and 3 inches in thickness, and weighs 22½ ounces. It is mainly composed of lithic acid and lithates. Although not absolutely the largest calculus ever removed from the human bladder during life it appears to be the largest removed during life with recovery

of the patient from the immediate effects of the operation. The case stands alone as regards the inclusion of the calculus in a pouch, the difficulty of the operation, and the breaking up of the calculus before extraction.

MEDICINE AND THERAPEUTICS.

Right-sided Endocarditis.—DR. BYROM BRAMWELL finds:

1. That right-sided endocarditis is much more frequent than is usually supposed; and that this conclusion is in no way contradicted, but on the contrary rather confirmed, by clinical evidence and clinical facts.

2. That Sibson's arguments against the tricuspid murmur of early acute rheumatism being indicative of right-sided endocarditis, are not valid.

3. That a tricuspid murmur occurring in the early stages of acute rheumatism in a previously healthy person who is not anemic, is indicative of a rheumatic affection of the right heart.

4. That whether (*a*) the tricuspid regurgitation is the *direct* result of the inflammation of the tricuspid valve, or whether (*b*) it is due to a rheumatic affection of the wall of the right ventricle, with resulting relative or muscular incompetence, the pathological evidence seems to show that when the right heart is so affected in acute rheumatism as to produce a tricuspid leakage, inflammation of the endocardium of the right heart is often (usually?) present.

5. That although right-sided endocarditis is of frequent occurrence, it is comparatively seldom followed by permanent organic disease of the tricuspid valve; in short, that right-sided endocarditis is an eminently curable affection.

The importance of this conclusion, if it be correct, can hardly be over-estimated. It is not a conclusion of mere scientific and pathological interest, but is of the greatest practical and therapeutical value. It shows the immense importance of rest in the treatment of endocarditis. The only reasonable explanation of the fact that mitral endocarditis is more severe and more frequently terminates in permanent valvular disease than tricuspid endocarditis, seems to be that the closure of the mitral segments is more forcible and that the inflamed mitral segments are subjected to greater strain than the tricuspid segments. In treating cases of mitral en-

docarditis our main objects should be to imitate nature's method of cure; to place the mitral valve, so far as we are able to do so, in the same condition as the tricuspid valve; in other words, to reduce the force (and also the frequency) of the cardiac contractions and to allow the products of inflammation to be absorbed just as they are usually absorbed on the right side of the heart.—*Am. Jour. of the Med. Sci.* April, 1886.

Recurrent Headaches in Children.—RUSSELL STURGIS reports that he has found excellent results in the treatment of recurrent headaches of children, by the use of fluid extract of ergot. These headaches affecting children otherwise healthy, generally come on in the morning. The pain is localized in some particular part of the head, either side, frontal region or vertex. The pain is severe during the seizure, generally preventing study or play. There may be optical illusions of sparks, bands and spots of color. There may or not be nausea. There is generally a sense of chilliness. He has found ten minim doses three times a day to give prompt and permanent relief.—*Boston M. and S. Jour.*, Feb. 11, 1886.

Masking Quinine.—Various means have been recommended for disguising or concealing the intense bitterness of quinine, which renders it always so difficult of administration to children and many adults as well. While the compound elixir of taraxacum and compound elixir of licorice serve a tolerably good purpose if freshly mixed with the quinine before administration, they have never proven entirely satisfactory.

Prof. Hugo Engel (*Med. and Surg. Reporter*, Feb. 27) has recently discovered by what may be called a fortunate accident, that a combination of muriate of ammonia with powdered extract of licorice gives the most perfect disguise for the bitterness of quinine that has yet been found. He suggests the following formula:

℞ Quiniæ sulphatis,
Ammoniæ muriatis, - - - - aa gr. j.
Pulv. ext. glycyrrhizæ, - - - - gr. iv.
M. Ft. pulvis.

For larger doses it is not found necessary to increase the licorice and the muriate of ammonia in the same proportion with the quinine, ten grains each of the licorice and the ammonia serving to cover ten grains of quinine.

The ammonia muriate and the licorice must be kept finely powdered, and intimately mixed in a dry warm place.

In preparing for use, a small quantity of water should be added first and a paste made, else the licorice will form little balls and swim upon the water, and will then be mixed with difficulty. As soon as all is thoroughly mixed to the consistency of syrup, the remainder of the water should be added, about half a tumblerful for twenty grains of the muriate of ammonia.

It is not stated whether this mixture will form a permanent disguise in mixtures to be prepared by the druggist, or must be prepared extemporaneously by patient at time of taking the medicine.

Janeways Laxative Pills.—The Editor of the *New Eng. Med. Monthly* gives the following as the formula for these pills:

℞ Ext. belladonnæ
Ext. nucis vomicæ, - - - - - aa. gr. iij.
Res. podophyllin, - - - - - gr. vj.
Aloes. Soc., - - - - - - gr. xij.

M. Ft. mass et div. in pill no. xij. Sig. Take one on retiring.

Therapeutic Use of Hippurate of Soda.—GARROD having demontrated the efficacy of the hippurate of soda as a solvent of uric acid, Dr. Bon proposes to utilize it in the treatment of affections characterized by an excess of uric acid in the economy, and suggests the following formula:

℞ Sodii hippurat, - - - - - - 5.15
Lithii carbonat., - - - - - 1.15
Glycerinæ, - - - - - - .15
Aquæ canellæ, - - - - - 240.

℞ Sodii hippurat., - - - - - - 7.
Potass. chlorat., - - - - - 1.5
Syr. simp., - - - - - - 24.
Aquæ. menth.,- - - - - - 180.

M. Four to six tablespoonfuls daily.—*Jour. de Méd de Paris*, 21 Feb. *Lyons Méd.*, 28 Feb., 1886.

A Classical Remedy for Hiccough.—G. A. GIBSON cites the Hippocratic aphorism, "Sneezing coming on, in the case of a person afflicted with hiccouch, removes the hiccough." He cites

also the story from Plato's dialogues in which the physician Eryximachus, directed Aristodemus, in order to stop his hiccough to hold his breath; if this should fail, to gargle with a little water; and this also failing, to tickle his nose with something and cause sneezing.

He has found, as a matter of fact, that tickling the nostrils is an effective method of arresting a paroxsym of hiccough, and it is often unnecessary to produce sneezing, as a less degree of irritation will generally produce the desired effect.—*Edinb. Med. Jour.*, April, 1886.

Antirheumatic Syrup.—A. FORT has found the following a serviceable combination.

℞ Potass. iodidi, - - - - - 20. = ℥v.
Potass. bromidi, - - - - = ℈iv.
Syr. gentianæ, - - - - 575. = ℥xviij.
Tr. iodinii, - - - - 20 drops.

M. Sig. A tablespoonful morning and evening in chronic articular rheumatism. Besides this, paint the painful joints with tincture of iodine.—*L' Union Méd*, Jan, 16, 1886.

For Rheumatism.—A. J. CONGER has personally tested the following and commends it:

℞ Potass iodidi, - - - - - - ℥ijss.
Tr. cimicifugæ, - - - - - - ℥iss.
Vin. colchici sem., - - - - - - ℥i.
Ext. hyosciami fl., - - - - - - ℥ss.
Syr. simplici, - - - - - - v.

M. Sig. Teaspoonful well diluted every four hours.—*New. Eng. Med. Mo.*, March, 1886.

Acute Articular Rheumatism in a Woman and her New-born Child.—A woman aged 35 years, and in the last part of her fifth pregnancy, was taken, May 1, with symptoms of acute articular rheumatism, the left hip and right wrist joint being affected. Sodium salicylate was administered. The disease continued unabated, when May 5 a healthy child was born; the delivery was rapid and the post parturient condition in no wise affected the course of the fever. May 8 the infant exhibited signs of the rheumatic disease; slight swelling of back of both feet,

heightened temperature, small appetite. May 9, foot swelling increased, also swelling and reddening of the first phalangeal joint of left index finger, and swelling of left hip; increased temperature. 10, redness and swelling over both hands and fingers and involving both hip joints. No heart symptoms. Child lies motionless and cries when moved. The disease was protracted both in mother and child, both taking the salicylate. The mother was free from fever not until June 10; she could not tolerate large doses of the salt; there were no complications. In the child the fever persisted till end of May, and active movements in the hands appeared in the second week of June; in the legs, the last of June.

The salicylate induced such persistent vomiting and restlessness that after a few days it was discontinued and a pure expectant treatment adopted.

The reporter, (Dr. Schaefer), considers this to be an undoubted case of acute articular rheumatism excited by intra-uterine infection. The period of incubation in this case would appear to have been 4–7 days. The case is such a rare one that Dr. Schaefer finds record of only one other. Dr. Pocock, in the *Lancet*, (1882, page 804,) details the case of an infant, which, immediately after its birth, exhibited unmistakable signs of rheumatic fever, the mother suffering from acute articular rheumatism. The infantile disease disappeared under use of the salicylate.—*Berlin Klin. Woch.*, November 5, 1886.

DERMATOLOGY.

REPORTED BY JOSEPH GRINDON, M. D.

Recent Progress in the Treatment of Chancroid.—CHAS. W. ALLEN, contributes an article to the *Journal of Cutaneous and Venereal Diseases*, which may be summed up as follows:

In phagedenic cases scraping and excision of undermined edges followed by the thermo-cautery, and dressing with diluted liquor of Van Swieten, has been successful.

To abort soft sores Hebra uses tr. saponis viridis as a detergent, followed by the dusting on of salicylic acid, which is covered with a plaster. After three days there forms a white scab which detaches under an emollient plaster, when the sore easily heals.

Iodoform is used in a variety of ways, one of the best for extensive ulcerations being to dust the powder over the sore, covering that with a thin layer of absorbent cotton, over which a solution of iodoform in collodion is painted, the whole covered with a top dressing of plain collodion to obviate the odor.

Vidal uses a powder of one part of pyrogallic acid to four of starch.

Of all caustics the thermo-cautery is the best, and since the introduction of cocaine has lost its terrors.

Baths at 104° F. have been found to destroy the virulence of the disease.

We have ourselves seen a frightful phagedenic sore which had continued to encroach upon the surrounding tissues in spite of everything that could be done to check its progress, including the use of the actual cautery, changed into an easily healing ulcer by twelve hours continuous irrigation with cold water.

M. Hubert says that a temperature of 100.4° F. will, if sufficiently long continued, change a chancroid into a simple sore.

Pyrogallic Acid in Lupus.—In another number of the same magazine, the same author speaks of the use of pyrogallic acid in lupus, psoriasis, etc.

Jarisch uses a ten per cent vaseline ointment.

Schwimmer first uses vaseline to remove all secondary products, then Jarische's ointment as above, three or four times daily for four to seven days; then wiping off the ointment, vaseline is again applied to remove any acid that may remain; finally, a dressing of mercurial plaster is applied.

Besnier sprays or paints on a saturated solution of the acid in ether, and then covers the surface with liquor guttaperchæ.

A case of fatal poisoning from the external use of this drug has been reported.

In psoriasis it is best used as a fixed dressing, dissolved in liquor guttaperchæ or collodion.

In the discussion of this paper before the New York Dermatological Society, the consensus of opinion seemed to be that pyrogallic acid was less efficient in the treatment of psoriasis that chrysarobin, although perhaps better suited to special cases, and that when applied to malignant ulcers it did not affect the hardened edges.

Furunculosis.—The latest treatment of boils is founded on the fact established by Pasteur and Loewenberg, that it is an inoculable affection, due to the presence of a vegetable parasite, the *torula pyogenica*, and consists in thickly painting the surface affected, as well as a margin of sound tissue with tr. iodinii. More severe cases are to be touched with carbolic acid or acid nitrate of mercury. Internally sodium hyposulphite or some preparation of sulphur is to be used.

Pomade for Eczema of the Scalp.—LASSAR suggests the following for eczema of the scalp:

℞ Acidi salicylici, - - - - 1 gramme.
Tinct. benzoin, - - - - - 2 "
Vaselini, - - - - - 50 " M.

To soften the crusts and cleanse the hair he employs a two per cent salicylated oil.—*L'Union Méd.*, Mar. 13, '86.

A Case of Multiple Myomata of the Skin Accompanied by Severe Pain.—DR. W. A. HARDAWAY records an intersing case which, viewed from a purely clinical standpoint, bears a strikingly close resemblance to the cases recorded by Duhring and Kosinski, which were looked upon by the authors mentioned as instances of pure neuroma of the skin. From a careful study of these cases Dr. Hardaway feels justified in concluding, that certain new growths in the skin and subcutaneous tissues, accompanied by severe pain, both of a spontaneous character, and as produced by direct irritation, may be of widely different histological structure; and that, therefore, from a clinical standpoint, we are not justified in assuming that a painful tumor or tubercle is a neuroma (fibroneuroma) from the subjective symptoms that it presents, or from the macroscopic character of the lesions.—*Am. Jour. of the Med. Sci.*, April, 1886.

DISEASES OF RESPIRATORY PASSAGES.

REPORTED BY L. CH. BOISLINIERE, JR., M. D.

Bronchial Asthma viewed in the Light of the Pathology of Hay-Fever.—SIR ANDREW CLARK states that hay fever occurs in winter as well as in spring, in mid-ocean or in the heart of great cities;

it arises under the influence of intense light, of heat, of certain odors, etc. There is evidently a constitutional predisposition and immediately exciting cause.

The subjects or their families are more or less "neurotic," and generally such diseases as gout, urticaria and eczema, neuralgia, epilepsy and pulmonary diseases may be found among them. The agent that regulates the phenomena of hay-fever is a nervous one.

Frequently all nasal symptoms disappear, and in their place there arises an attack of bronchial asthma, thus establishing a connecting link between the two affections.

"And the more closely and critically one examines them, the stronger grows the conviction that they possess the same hereditary, constitutional and local alliances, the same structural changes exist in both; that the same causes operate in their production; that they follow the same course; that eventually they have like issues, and that the differences to be found in their effects are to be explained by the difference of the parts affected, and the widely different importance of their respective functions in the economy. If all this be true, if it be true that hay-fever is a neuropathic vascular disease, if it be true that all essential facts of this malady find an adequate and complete explanation in the hypothesis of a nervous origin of the affections, and if it also be true that we should admit no more causes of a thing than those that are both true and sufficient, why should we not consider bronchial asthma to be the same disease as hay fever, and why should we invent unnecessary and unphysiological explanations of phenomena otherwise to be accounted for by demonstrable facts?"

He contends that the nervo-vascular swellings, like those of hay-fever, arising suddenly in the mucosa of the bronchial tubes, now in one part of the lung, now in another, occasionally completely occluding the tube, occasionally narrowing it, adequately explain the phenomena of bronchial asthma.

The theory, as laid down by Williams, Gairdner and Bergsch that asthma is due to a spasmodic contraction of the bronchial muscles is not tenable, since we have no proof that the contractions, under stimuli, are complete, quick or sufficient enough to account for the local phenomena of asthma. Paul Bert considers these phenomena quite inadequate. Again, when the chest is expanded, the bronchi contract only slightly; in asthma the chest is dilated. If the spasm of the bronchioles be so intense, why are the lungs full

of air? why is there clearness, instead of dulness, on percussion?

The sudden changes in pitch and locality of the asthmatic râles could not emanate from the contraction of the bronchial muscles, which are slow, persistent and progressive. He summarizes his belief in the following propositions:

1. Asthma is a nervo-vascular trophic disease and has its roots in a special vulnerability of the respiratory mucous membrane, of the respiratory nerve centres and of certain portions of the sympathetic.

2. The irritation exciting the nerve discharges which bring about the asthmatic paroxysms, may arise in the blood, in any one of the mucous tracts, but more particularly the respiratory one, in certain cutaneous inflammations, and in the central nervous system itself.

3. The paroxysm begins by a diffused hyperemic swelling of the bronchial mucous membrane, and continues by the development of circumscribed congested swellings thereon, which come and go, and resemble the swellings of the skin in nettlerash.

4. At first these swellings become coated with a viscid mucus, hindering the entrance and exit of air, and by their vibration producing the characteristic dryer râles. After free secretion these swellings subside, dyspnea is relieved, and moist take the place of dry râles.

5. The secretions from the swellings, being sometimes acrid, may excite contractions of the bronchial muscles, but such contraction can not become the chief factor in evolving the asthmatic paroxysm.

6. Both the peripheral nerves and respiratory centres being irritated by the diminished and insufficient aëration of the blood, the inspiratory muscles are thrown into violent and even tetanic contractions.

7. These violent inspiratory efforts, increasing the Hallerian extension force of the thoracic walls straighten the bronchial tubes, and, notwithstanding the tendency of inspiratory forces to increase the size of the swellings, make the entrance of air into the lungs far easier than the exit.

8. The egress of air is greatly hindered both by the compression of the smaller bronchi, containing the mucous wheals, and relaxation of all the passages, which thus lose their straight direction. The act of expiration is so prolonged that it is frequently inter-

rupted by the violent inspiratory efforts, originating in the inspiratory nerve centres, through the circulation of imperfectly oxygenated and decarbonized blood. The alveoli are distended with air, the diaphragm is depressed, the chest dilated, breathing becomes more and more difficult, death seems imminent, and the paroxysm is at its height.

9. After a time the bronchial mucosa begins to secrete, the excitability of the respiratory and vaso-motor centres is exhausted, respiration becomes easy, lividity of the face disappears, restless anxiety disappears, and the attack is brought to an end.—*Am. Jour Med. Sciences.*

Terpene in Catarrhal Phthisis, Hemoptysis, Chronic Bronchitis.—PROF. GERMAIN SÈE, in the *Bulletin de l' Académie de Médicine*, No. 30, 1885, gives the following résumé of his paper on this subject:

1. It (terpene) diminishes and quickly arrests purulent expectoration in catarrhal forms of phthisis, whether the muco-purulent secretions proceed from the bronchi irritated by tubercle, or from the walls of pulmonary cavities, whether the malady is at an early stage, or even if cavities are already formed, terpene should be used whenever the formation of pus is sufficiently abundant to tire the patient, to exhaust the strength, or to cause him to waste away.

2. It should be used with success in the hemoptysis of the early stages of tuberculosis; that is to say, when the disease has not yet developed large cavities, with aneurisms of the pulmonary arteries.

3. In the treatment of pulmonary catarrhs, of chronic bronchitis not dependent on asthma, and only producing dyspnea by choking the bronchi, terpene constitutes the best method of lessening bronchial hypersecretion.

4. The action is quick, sure and free from physiological inconveniences, rendering it preferable to preparations of syrups of turpentine or tar, or of shoots of pine which contain so little of it, and also to essence of turpentine which is not tolerated. It even offers advantages over creosote on account of its perfect innocuity and easy digestion.

5. The best way of administering this medicine is either in the form of pills or tincture, and the best dose is one gramme.

6. In catarrhal or emphysematous, or nervous asthma, which is to be distinguished from primary catarrh, iodine and pyridine have

an uncontestable superiority."—*Med. and Surg. Reporter*, Jan. 30, 1886.

Terpene, a crystal, is soluble in solutions containing a small percentage of alcohol. Consequently a good formula would be

Terpin.,	gr. xxxij.
Elixir simplicis,	℥ij.

M. Sig. One teaspoonful three or four times a day.

Terebene, a similar preparation is a liquid, and is given in doses of five to ten minims dropped on a lump of sugar. The orthography of "terpin" seems to be unsettled, as it is variously spelled, "terpine," or "terpene," or "terpin" and "turpine".

Coryza.—DR. FLINT suggested that coryza is not due to a cold but to a parasite. It often occurs when there has been no exposure. For its cure he advises quinine in two-grain doses, three or four times a day. He mentioned also that it has been reported that the insufflation of camphor and quinine has been proven abortive as well as curative of the affection.—*Jour. Am. Med. Assoc.*

Chromic Acid to Secure Breathing Space in an Occluded Nose has been employed by Dr. M. Bregsen, of Frankfort-on-the Main, his procedure being to imbed a few crystals of the acid in cotton applied to a silver probe, and thus oppose the crystals to any desired point of the mucous membrane; the mucus will dissolve the acid, the strength being limited by the duration of the application. —*Am. Jour. Med. Science*, April, 1886.

Digital Examination of Nasal Chambers and Denudation of the Turbinated Bones in Treatment of Chronic Nasal Catarrh.—DR. HARRISON ALLEN, considering the anatomical character of the mucous membrane in chronic nasal catarrh to be so far changed, the writer has been studying and treating these structures as though they were bone and periosteum respectively. The patient is anesthetized, the finger is inserted into the nostril and gently pushed upwards and backwards, until it reaches the plane of the level of the middle turbinated bone. If the membrane be healthy, it is firm, resisting, and resilient; if chronically inflamed, it is soft, and is at once detached from the bone. Any malposition of the bone can now be rectified. If the bone be diseased, as is frequently evidenced by the deposition of the products of inflammation, the result of prolonged sequestration, the bone may then be scraped.

The anterior free end of the bone may now be examined and its position corrected. The lower plane of the nose should be explored; but this is less satisfactory by digital examination than by direct ocular inspection, as there is more resistance.

The bleeding is slight and easily controlled. The examination takes but a few minutes. The denuded surfaces become covered with normal membrane; the discharge is less in quantity and less viscid.

By the above procedure cases of the most pronounced type of fetid catarrh have been further advanced in improvement than by a long course of local treatment. After denudation the electro cautery, solution of nitrate of silver have the happiest effects. Should the membrane become tense it may be deeply incised or a a small portion scraped.—*Am. Jour. Med. Science*, April, 1886.

PATHOLOGISTS AND CLINICISTS.—JONATHAN HUTCHINSON says: "I should be sorry to suggest that the two sets of workers are in any sort of antagonism, and yet it does seem somehow as if, like the two sides in a game at cricket, they could not both be in at the same time. You will remember that, whether in or out, it is necessary to a good game that both play well. The team so brilliantly led by Paget gave up their bats twenty years ago to that of which Virchow is the captain. The latter has had a splendid innings and made a long score; but there are indications, I think, that it will shortly give another turn to its competitor, and not perhaps without some advantage to surgical science."—*Glasgow Med. Jour.*, May, 1886.

SUCCESS IN LIFE—"There are three ways you may try, there are three interests you have to consider, and it will depend upon the order in which you consider them how success will be measured out to you. The first interest is your own, and it may seem to you the greatest, whilst it is really the last. The second interest is truly greater, for it is the interest of your professional brothers; but the last is the greatest of all, for it is the interest of your patient, and with that is eternally related the interest of the art you practise." Dr. Syme quoted by Mr. Tait.—*Edinb. M. J.*, May, '86.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting March 18, 1886. Dr. McPheeters, President, in the Chair.

PESSARY LONG RETAINED.

Dr. Papin.—At our last meeting Dr. Prewitt reported a case in which a Hodge pessary had been introduced to relieve a procidentia, and had been left until it had imbedded itself in the tissues, having cut its way through portions of the cul-de-sac of Douglas, which had inclosed this ring as the ear of a lady incloses an ear-ring. In removing it, he cut the flesh away and then removed the pessary. My suggestion that he might have cut the ring and removed it as a lady would an ear-ring from the ear, seemed to strike him as something new. I then mentioned the fact that some years ago for the purpose of relieving temporarily a case of procidentia, I had introduced a ring which had remained only two months, and yet in those two months had imbedded itself so deeply that it was necessary to cut it in order to remove it.

The day after that last meeting of the Gynecological Society, a woman presented herself to me at the clinic at St. John's with a pessary that had been in there for the last seven years. It originally was a Hodge pessary, but by heating in hot water it had been shaped out into this ring which you see here.

Carrying out my suggestion to Dr. Prewitt at the last meeting, I concluded that I would cut this pessary and remove it; but not being prepared to perform the operation at that time, I told her to come the next day. I then sawed the thing through in two places, thus removing a section and enabling me to slide it around and remove the balance of the ring. I think it is the preferable operation; first, because it is not a bloody operation, only a few drops of blood having escaped, and then there is no danger of septic poison from the cut, etc.; and it is most effectual and allows the flesh to

remain in the cicatricial condition in which it had been brought. I look upon it as a perfect cure in this case. The puckering up of the tissues adhering to the sides of the pelvis forming a thick mass there, which eventually caused the deposit of new tissue, has completely cured the procidentia. I have frequently seen ulceration produced by pessaries, but only three times have I seen this accident.

Dr. McPheeters.—The irritation produced by the pessary relieved the procidentia?

Dr. Papin.—The cicatricial tissue forming in the cul-de-sac of Douglas effected the cure.

Dr. Boisliniere.—This case shows that it should be the rule to examine pessaries within three or four days after their insertion, because if they are going to cut at all they will have begun to do so by that time. You can tell at least in a week, whether they are going to cut into the tissues or not. If the pessary is beginning to cut, it can be removed and exchanged for another of a different size. This is very important. I have found in cases where pessaries are too long, they produce very bad effects. Then again in some cases, the uterus is not properly reposited before the pessary is inserted. It is of no use to introduce a pessary in a case of retroversion, unless the uterus has been properly reposited, because it will push forward against the urethra and press against the posterior fornix and body of the womb, and then it is sure to make an impression there. Gynecologists are often in too great a hurry to insert a pessary without replacing the womb. Very many insert them on their first visit: I have seen bad results from this practice. The first step should be to replace the uterus by some means. I have devised, as I have told the Society before, an instrument which answers the purpose admirably well. I frequently reposit the uterus with this instrument as the first measure. This instrument acts in the genu-pectoral position through the rectum. It is so devised that it assumes the curve of the sacrum and the end of it terminates a little above the promontory. The woman being in the genu-pectoral position, the knees properly separated, the instrument is inserted, guided by a finger in the vagina along the curvature of the sacrum until the rounded end of the instrument passes beyond the promontory, then by a movement of leverage, the retroverted fundus is turned forwards in an almost anteverted position. After properly replacing the womb and before allowing the patient to change her position,

the pessary is introduced; the patient is then allowed to lie down, and I introduce a sound to find out if I have been successful. In the great majority of cases success is complete. As a substitute for this instrument I use the depressor of Sims', which you all have in your case, one of the best instruments that Sims ever invented. I am very much surprised that some gynecologists in this city don't use it at all, because it is a very admirable instrument. This depressor of Sims has a ring at the end about half an inch in diameter. It is made of malleable metal, and should be bent to the proper curve of the sacrum. To be successful, this Sims' depressor should be inserted into the rectum about seven inches. I use this as a rectal repositor, the woman being in the knee-elbow position, and tip the uterus over. The objection has been raised against the reposition of the uterus, that it is sometimes necessary to use some force from the fact that there may be adhesions. Now, I have never yet found a uterus with adhesions that I couldn't break up with very little effort. I have seen thousands of cases of gynecology, and never yet have seen an adherent uterus which interfered with the reposition of the organ. These adhesions are too often a bugbear in the minds of gynecological writers. Of course there are limitations; that is, I would be certainly exceedingly imprudent and to blame for the mischief which would certainly follow, were I to use this instrument in replacing a uterus where there was pelvic cellulitis or pelvic peritonitis with adhesions around the womb. I don't mean adhesions of the utero-sacral ligaments, for these can generally be easily loosened, but I think a man would be very much to blame if he should attempt anything of the kind where there was pelvic cellulitis or peritonitis of any degree or stage or effused lymph from pelvic cellulitis or pelvic peritonitis: in fact the less that is done for the uterus in which there is pelvic effusion the better. Not even in subacute cases of cellulitis should we introduce the sound to reposit the uterus, or attempt any method of reposition, and, especially in acute cases of cellulitis should it be considered as extremely dangerous, as by this rash procedure the woman would certainly be confined to bed and placed in a very critical position for three or four months with probably the formation of a pelvic abscess. These, as I say, are the limitations. Before attempting reposition of the uterus I, therefore, always assure myself that there is no cellulitis or pelvic peritonitis, and then I am free to act. There is a certain mobility of the uterus which is characteristic of the ab-

sence of cellulitis. There are other repositors which are certainly good in some cases, for instance, in the virgin uterus, Emmet's repositor is very good. It has this fault, however, that when it is introduced and the uterus properly reposited in withdrawing it the uterus is apt to be put back where is was at the start. In using Emmet's repositor in retroversion the anterior lip should be pushed back as far as possible and held firmly there whilst withdrawing the instrument, then you will secure against a return to the former position, and secure complete success with this excellent repositor, useful also in anterversion. Some repositors have too large an end and cannot readily enter the neck of the uterus. If you place the patient in the genu-pectoral position and your finger is long enough, with one finger in the rectum and another in the vagina, it is possible to effect the reposition. The objection has been raised to using a repositor through the rectum, that the woman may have fissures of the anus or hemorrhoids; but that is no objection, because dilatation of the anus is desirable in those cases, and it will dilate the anus very effectually and without pain, if enough cocaine is used before introducing the repositor. I have never yet seen a case of fissure of the anus or hemorrhoids that would prevent the rectal reposition of the uterus. Adhesions of the utero-sacral ligaments are no objection, and the only objection is, as I said, the presence of pelvic cellulitis or peritonitis. No pessary should ever be introduced until these conditions are removed.

Certainly Hodge's pessary is very valuable, and especially Albert Smith's modification of it. In a great many cases, for instance, in a virgin uterus where there is retroversion, a soft ring pessary answers an admirable purpose. For this purpose I use simply the Peaslee's or the soft teething ring of children. I got this hint from Dr. Lemoine some years ago. It is an admirable pessary in young girls. It will easily assume the curve of the sacrum and transform itself into a Hodge pessary; but there is the objection of the very offensive smell of all soft pessaries, especially in the summer time, unless copious injections are used in the vagina. Pessaries do a good deal of mischief sometimes, yet I do not believe in the teachings of Dr. Storer, who said that he removes more pessaries than he introduces. It shows that Dr. Storer has not studied this question so thoroughly as he has done other questions. Now, Dr. Thomas and other authorities say they cannot do without pessaries. Without the pessary you cannot practice gynecology, be-

cause, if reposition is effected, the abnormal position will be reproduced.

Now the pessary for anteversion *par excellence* is the Gehrung pessary. It is recommended by Mundé, Graily Hewitt, and many other modern writers, the best authorities in gynecology. It is simple, does not block the vagina, and therefore is no impediment to coition. It has its fault, and it must be watched carefully, because it has a tendency to turn around, but by a proper selection of the size, adjusting it and a little attention to it, we will succeed generally in most cases of anteversion, and it is also very satisfactory indeed in cases of cystocele and prolapse of the uterus in the first degree, where there is prolapse of the anterior wall of the vagina, and the beginning of descent of the uterus in the first degree. I have never seen this pessary do any mischief in the way of causing erosion or cutting.

I remember the case of an old lady who had a hollow globe pessary made of gold, costing about $20 or $30. It was a ball about the size of a large orange. This woman had procidentia, and she wore that pessary for a long time. Finally, I attended her for some other trouble, and noticed that she had a very bad smelling vaginal discharge. I examined her, and found what seemed to be a large tumor. In response to my questions, she said that seven, eight or ten years before she had had a pessary inserted. I delivered the pessary with the forceps, with some difficulty on account of the incrustations in which it was imbedded.

Dr. Papin.—Did you use Tarnier's forceps?

Dr. Boisliniere.—No, sir; I used the short narrow-bladed forceps. They don't use these globe pessaries any more.

For poor people those old glass pessaries are good. Then there is a pessary which Dr. Prewitt suggested some time ago. Dr. Prewitt suggested in the case of procidentia to make use of a simple India rubber ball which is emptied of the air before introduction, and after its introduction the air fills it up. This answers a good purpose in a good many cases at the clinic. They are very cheap. I get two for 25 cents. It keeps the womb in very good position. It is a very good globe pessary. I call that Dr. Prewitt's pessary. Of course the smell is terrible, but in some cases it succeeds very well.

Dr. Ford.—Doesn't fluid get in, and by reason of being retained and undergoing decomposition cause the smell?

Dr. Boisliniere.—I think not. It is a thick rubber ball, a plaything for boys, and the opening is very small. But on account of having this ball in place, the woman cannot use injections to wash out the parts—that is the objection. But these poor people can be taught to take it out every night and introduce it again, and use detergent injections. I use these for clinical purposes. Of course for the better class of patients they would not do, but for clinical purposes it is a very good pessary for procidentia. Then, there is the pessary by dry dressings, which Dr. Engelmann suggested and which he explained so well the other night. This will answer very well in many case. This cotton, marine lint or jute answers very well in procidentia also, but it has to be removed and replaced constantly.

Dr. Papin.—I don't know that I can add anything to what Dr. Boisliniere has told us about the pessary, except to corroborate his statement of the terrible smell which accompanies the use of the round globe pessary. I remember a case in which I had to remove a wooden ball pessary with the forceps and the smell was perfectly indescribable. I removed a pessary from an old German woman once, one of Koch's wooden pessaries, oblong in shape and crossed by narrow parallel bars, the whole covered over with wax and then introduced. This woman came to my office very feeble and broken down, with hectic fever and diarrhea, and I don't know what all. She was a pitiable looking object. And she related to me, among other other things, that she had had a pessary introduced four years prior to that in Germany, and begged me to remove it, which I did. The fenestrum was entirely closed up even with the thickness of the pessary with this cheesy sebaceous mucus or whatever it may be called, that was secreted by the vagina. After removing it, I threw it out of the window, and taking a little dilute carbolic acid I washed out the vagina thoroughly. I also gave her some disinfectant wash, about a four or five per cent solution of permanganate of potash solution, to use herself. She came back in the course of a week or so afterwards, and I didn't know the woman; she had improved so much in her appearance.

Dr. Engelmann.—Dr. Papin has touched upon a subject in his remarks which I think might well be elaborated, and I regret exceedingly that Dr. Boisliniere did not give us his experience in the same direction, although he gives us very valuable hints on the *use* of the pessary, his experience in its *abuse* would be timely. The

profession should know more about the dangers resulting from their abuse. The pessary is an instrument which has been commonly and freely used, and a vast deal of mischief has been done. Excellent results have been recorded, but very little has been said about the damage which has been done by the pessary. Unfortunately many who use pessaries do not follow up their cases, and, if injury is done, they know nothing about it. Many know nothing about the results and suppose them good. I have seen injuries so caused which have been more or less serious. The pessary is certainly a very valuable instrument. Like a great many other methods of treatment, it cannot be replaced by any other for a particular purpose in certain cases; but it is by no means good for every case of uterine displacement. The pessary, like the intrauterine application of iodine, has been misused, abused, used almost universally, and, in this country, it has been used more freely than anywhere else. When I began practice, I heard so much about the good accomplished by pessaries, and saw them used in such enormous quantities, that I was a little astonished at my unsuccessful efforts in my own cases. I drew my own conclusions and soon ceased following what seemed to be the general practice. I take this position; that the pessary is only to be used in a healthy pelvis, or rather in healthy organs which are simply displaced by reason of relaxation of tissues, or in which slight morbid changes have followed the displacement, that the pessary is merely to hold in place an organ which is healthy, or nearly so, and which has lost its proper footing by reason of the weakness of some of its supports. If displacements exist, we should attempt to relieve the disease which causes them; this being relieved and the displacement then still continuing, we complete the cure by the aid of the pessary. Many use the pessary although their experience has been identical with my own. Some attempt to use it because authorities claim such excellent results; others because it has become popular. I have seen a great many very sad cases of suffering and ruined health following the use of pessaries. I refer not to that class of cases of which Dr. Papin speaks, which are perhaps the most striking cases, where the pessary is imbedded and has caused ulceration, but I refer mainly to those in which cellulitis has resulted.

Dr. Papin.—This is the neglect of the practitioner.

Dr. Engelmann.—Those cases in which cellulitis has been caused

or has been aggravated by the pessary are common in my experience. I have one in mind, the wife of a physician from our state, who is in the city now. Two years ago she was here for treatment; was somewhat improved; came back last year to resume treatment, remained in the city all winter; and returned home an invalid. She came here in fair health, walking about. The uterus was displaced, and her physician attempted to use a pessary; tried many; one did not fit, and another was tried, and this also gave her pain, but she was told just to bear it, as the pessary would finally benefit her. She did so, until she could bear a pessary no longer. She returned home, to spend the better part of six months in bed, a sick and suffering woman. I am now treating the chronic cellulitis excited by the pessaries then used. The uterus is displaced but we need not attempt to replace it. Cellulitis had very probably existed in a very light form previous to the use of those pessaries. This is a case similar to those which I see too frequently. An ulceration, a slight semicircular erosion in the posterior portion of the cervix is also very common, yet that means comparatively but little, it is the result of neglect, a superficial excoriation. The pessary has been used so freely, the instruments are sold in such enormous quantities, they are inserted by physicians who do not thoroughly understand the manner of use, that it is not to be wondered at that a great deal of trouble is produced, inflammation about the ligaments and the ovaries which finally become seriously affected. The instrument has been so long used and so much abused that it is high time we heard something of the resulting injuries in place of the reports of the good result accomplished by pessaries.

With regard to anteversion and anteflexion pessaries you will see what they amount to at a glance, if you recall the fact that Dr. Thomas has invented some thirteen or fourteen different anteversion and-flexion pessaries. I was present when he showed the thirteenth anteversion pessary and he himself said that this long list of pessaries proved how little satisfied he was with the instrument. He naturally thought the last was the best, but he was not perfectly satisfied with it. We have hundreds of forms of pessaries from which to choose, and in proper cases one or the other will serve. A vast deal of good can be accomplished by the use of pessaries in proper cases, and I maintain that the pessary must be used only when the pelvic tissues are free from inflammatory conditions,

when the disease which caused the displacement is relieved, or when the uterus is low down in the pelvis by reason of weakness of tissues which support it, and even then I would prefer the tampon, if the circumstances are such as permit a curative treatment. The pessary is by no means always curative. In certain cases we must use this temporary support, but, if possible, a curative treatment should be employed. It is my experience that the injury done by inflammation excited in the surrounding tissues is much more common and much more serious than the cutting into the tissues, such as Dr. Papin has related. This cutting into the tissues followed by hypertrophy or cicatricial contraction, may result in cure of the procidentia, but the inflammation in the cellular tissue and pelvic viscera is the most serious and most common sequence. Not uncommonly a pessary is applied and causes such intense pain that the patient will not bear it. Hence it is at once removed and she is saved, but if allowed to remain in, as it often is, although giving pain, it is causing injury. If the pain becomes too severe, it is at last removed and another one tried, until the mischief is done I often hear of cases in which suffering has been so excessive that the patient was obliged to go to a neighboring physician to have the pessary removed, upon returning home from her visit to the physician a few hours after insertion. From all I can gather physicians in the country are to a great extent giving up the use of the pessary, because in so many cases where the pessary has been used they have seen very few good results but much harm, and because this instrument, which under proper conditions is a great advantage to the patient, has been abused, used in cases in which it should never have been inserted, and because the evil results have been such and so frequent as to deter them from using the instrument. However excellent and however useful, it is not a *sine qua non*, and we can get along very well without it. Most assuredly we had better ostracize it than permit the prevalent abuse to continue.

Dr. Barret.—Dr. Engelmann says we don't hear much about the abuse of the pessary. I think everybody who practises gynecology must hear enough of the abuse of the pessary.

Dr. Engelmann.—That is true. I mean to say that we do not hear it spoken of in the journals. I am very well aware that we all see numbers of cases in which pessaries have been improperly used, but the country practitioner is not so likely to see them, as he cannot follow such patients.

Dr. Barret.—The country practitioner does not know anything about pessaries.

Dr. Engelmann.—But they make use of them.

Dr. Barret. They ought not to. I think it is only when a pessary is improperly used that it will do injury—that is, a pessary which is properly fitted in a proper case does no harm, and any pessary which does not fit, and is not used in a proper case, is not a curative instrument. Now the instrument which rectifies the position of the uterus and helps restore the circulation, that takes off pressure and keeps the uterus in a proper position and retards cellular trouble, is curative. Any instrument which gives pain is pernicious. If a man uses a pessary in a proper case for the use of a pessaries, and has skill to adapt the pessary to the requirements of the case, then it is a curative instrument. If it is a case where a pessaries ought not to be put in, or if, while it is a proper case for the use of a pessary, the man cannot fit it, it ought not to be put in. No pessary ought to be put in which is not made of malleable material, that is a pessary which cannot be suited to the requirements of the case. Every womb requires some modification, some difference in the shape of the pessary. I don't think there is any pessary at all except the Hodge pessary which should be used. I think that the other pessaries amount to nothing. As to anteversion pessary, there is no anteversion pessary at all, no instrument that will do any good in anteversion. I don't think there is any woman who will stand the pressure upon the bladder which the anteversion pessary produces. The only good that I have been able to obtain from a pessary in cases of anteversion is to lift the uterus a little higher, taking off the pressure from the ligaments in that way. Dr. Emmet has called attention to what he calls the health line of the uterus; that is, where there is any cellular inflammation about the uterus, and the woman is placed in an erect position, and the finger is introduced in the vagina, lifting the uterus up to a point in which there is a sensation of relief to the feeling of dragging and pain, that indicates the point at which the uterus ought to be held. In our text books and anatomical plates there is a theoretical exposition of what is recorded as a normal situation of the uterus. This normal situation of course has been determined by the examination of the cadaver after death, and Dr. Emmet contends, and very properly, that there is no normal position of the uterus; that is, that the position of the uterus varies in different

women and perhaps with the same woman at different times. Now any instrument that holds the uterus up too high and puts the tissues on the stretch upwards does as much harm as if no pessary was used, because the irritation is then produced in the opposite way. When proper skill is used for the adaptation of a proper instrument in proper cases, they are an invaluable means of treatment. But there are very few people who know how to adapt a pessary; and I think there is no instrument that is as much abused as the pessary. I think pessaries are very valuable, but that there are very few malpositions which can be corrected with the pessary, none except backward misplacement.

Dr. McPheeters.—I would like to ask Drs. Boisliniere and Papin if, in their experience, the pessary is as universally applied as it was thirty years ago—that is, if they are applied so indiscriminately?

Dr. Boisliniere.—I think not. I think they are applied with more discrimination now. I think the more ignorant gynecologists and midwives do not use pessaries so much as they did some years ago.

Dr. Engelmann.—That is the important point. Midwives and general practitioners make frequent use of pessaries, and this is unfortunately furthered by discussion and articles always touching merely upon their excellence and the resulting benefits. These midwives begin to think that whenever a displacement exists, a pessary should be inserted, and of course they do a great deal more harm than good.

Dr. Papin.—I think the pessary is to the womb what the suspensory bandage is to the testicle, or a splint to a broken leg. I certainly won't put a pessary into a vagina where there is acute vaginitis or acute peritonitis. I won't put a pessary where there are old and strong adhesions. I won't put a pessary into a vagina to relieve a cancerous womb. These are exceptions. In other cases I think a pessary answers an important purpose most admirably. The womb is so placed in the pelvis and so surrounded by its fellow organs that if at all misplaced, the tendency is to passive congestion, if not worse. No womb is thrown backwards that does not fall, more or less, in the concavity of the sacrum. In consequence you find catarrhal affections, an oozing from the superficial glands of the mucous membrane, and the deeper glands continually give off a thick viscid matter; this is continually flowing and draining the

woman's strength. I think that the pessary does a great deal of good. In many cases it relieves the congested condition, it relieves the circulation, establishes the balance between the venous and arterial circulation. The womb does not occupy a fixed position in the pelvis. Its very purpose precludes the idea of its being in a fixed position. It is very loosely attached by broad and round ligaments. It depends not only upon these ligaments, but also upon the surrounding parts for its normal support. If a woman stands on her feet the uterus tips down; does she lie on her back, it tips backward; does she lean forward, it tips towards the bladder; is she pregnant, in the first few weeks, down it goes, because of the increased weight and enlargement of the body, its ligaments are unable to hold it up. The French predicate the proverb upon this; they say: "*Ventre plat, enfant il y a.*" "In the flat belly there is a child." Because the womb has fallen in the pelvis and has absolutely relieved the abdominal wall. The womb is not, then, in a stationary normal place. But for ordinary purposes and for the purpose of making ourselves intelligible, not only to the student, but to practitioners, let us examine where its normal position should be. If you run an imaginary line from the fundus to the neck, and extend that imaginary line upwards, you will strike about an inch below the navel of the woman. If you extend the line in the opposite direction it will about strike the anterior portion of the sphincter ani. The body of the womb rests upon the fundus of the bladder, more or less, in a normal condition, and the rectum comes down behind it. It is supported on either side by broad ligaments and the Fallopian tubes and attachments of the ovaries; but when once displacement occurs, unless the surrounding tissues are acutely inflamed, or from other cause, the use of the pessary is indicated. There is no one remedy that in my hand has produced so much real good as the Hodge pessary, modified often to suit the case. But as a rule I find that by simply selecting the different sorts that are commercially to be obtained, I have sufficiently accurate measurement of the pelvis of the woman to make her feel very comfortable. Where you have twenty retroversions, aye, fifty, you may not have a single case of pelvic cellulitis appreciable, even if you are conscious that there may have been former adhesions of the charter described as the result of acute cellulitis, acute pelvic peritonitis and this inflammatory action has disappeared. The tendency here is not toward a puckering of the mucous membrane or skin,

but toward relaxation, and with a little assistance you can very often overcome the adherent condition of the uterus that otherwise would remain probably in the position in which the inflammatory condition had left it. Dr. Boisliniere alluded to that fact in making use of the rectal instrument. He does not hesitate to break up these adhesions, because there is no inflammation there, and we all know that some connective tissue is devoid both of bloodvessels and nerves of its own; it is a mere space through which they go to other organs, and, unless the inflammation starts from the peritoneal covering, or from the tissue proper of the womb, or of the bladder or rectum, or passes through and through the tissues, thus involving the connective tissue and the cellular tissue proper, we know very well there is no such inflammation there; the tissue has not sufficient vitality of its own to invoke an acute inflammation. It is only when the organs surrounding it become inflamed that it shows these results. No, sir, I would not be able to practice gynecology if I were deprived of the use of the pessary, and I consider myself as clever a surgeon as he who knows how to set a limb in a splint, or a physician who knows how to sustain and bandage a testicle on account of the elongated scrotal tissue.

Dr. Boisliniere.—I wish to reiterate my position in regard to the use of the pessary in acute cellulitis and vaginitis. These troubles should be relieved first. But I find the presence of old adhesions of the utero-sacral ligaments no obstacle to the use of the pessary, even if it is necessary to break up the adhesions.

Dr. Barrett.—You don't think the inflamed posterior ligaments contra-indicate its use ?

Dr. Boisliniere.—Yes. I would subdue the inflammatory process first, and when pain has ceased and the case has become chronic, I would break the adhesion, reposit the uterus, and place in a proper pessary.

Dr. Barrett.—There is a very common condition and one which is frequently overlooked. It is one which Dr. Boisliniere referred to just now as the inflammation of the posterior ligaments and utero-sacral ligaments in which there is laceration of the cervix, and the cervix becomes enlarged and distended and fills up the upper portion of the vagina. The upper portion of the cervix gets too big for the vagina, and consequently the uterus is pushed backwards; that is one explanation of the backward displacement and laceration of the cervix. Another explanation is drawn from the fact

that laceration of the cervix is almost always accompanied with laceration of the perineum. Why it is I don't know; but it does seem that in the large proportion of cases, probably nine of ten cases in which the neck is lacerated I have found the perineum also lacerated. This laceration of the perineum takes away the vaginal support which is the main means of sustaining the uterus. When the uterus is displaced backwards, inflammation of the posterior ligaments is very common, and they contract and pull the neck back and produce retro-flexion. Those ligaments are tender, and since the pessary necessarily presses on them, the use of the pessary is inapplicable in those cases, and they form a large proportion of the cases in which it is impossible to introduce pessaries.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, March 23, 1886, DR. BREMER in the Chair.

TEREBENE

Dr. Mulhall reported his experience with terebene. Dr. William Murrell of London, one of the great therapeutists of the age, was the first one to call attention to its virtues in what is known as winter cough, chronic bronchial catarrh. Dr. Mulhall has tried it in about thirty cases including several cases of phthisis. Dr. Murrell claims that it is one of the best medicines, perhaps the best, he has ever used to relieve chronic engorgement of the bronchial mucous membrane—loosening the mucus and making it come quite freely and easily. His own experience has been corroborative of the results reported by Dr. Murrell. In several cases it had a most astonishing result so that in the course of four or five days the cough of a chronic bronchial catarrh was entirely relieved. One old man said that he had bought fifteen or twenty bottles of medicine and none of them had had any effect in relieving his old winter cough. Dr Mulhall ordered terebene, and he came back in the course of five days and said that it had done him more good than all the cough remedies he had used, put together. It rendered his cough perfectly loose and easy, and there was no longer any trouble with it. In several cases of phthisis it had the effect of making

the secretion quite easy of expectoration, and seemed to help their condition. Dr. Murrell also claims that it is excellent for the flatulence of dyspepsia which so often complicates cases of bronchial catarrh. Another advantage which Dr. Murrell claims, is that it is administered very easily, and this certainly is true. Half an ounce can be carried in the vest pocket; and may be taken, five drops at a dose, three times a day on loaf sugar. Dr. Mulhall gives ten drops at a dose. Patients do not make any objection to taking it; it is quite agreeable to take.

Dr. Boisliniere, Jr. remarked that Professor Germain-Sée advised giving turpine in solution containing a little alcohol in similar cases as those for which terebene has been found so useful.

Dr. Moore thought the remedy spoken of by Dr. Mulhall had a wide field. He had a chronic case of asthma which was losing its spasmodic character and assuming that of chronic bronchial catarrh with a most viscid expectoration. He asked if Dr. Mulhall had tried this remedy in such a case.

Dr. Mulhall had not treated with terebene, any cases complicated with asthma, because he regarded the spasmodic element as due to disturbance of the nervous system and did not suppose terebene would affect that, but the catarrhal element, it would. In cases of bronchial catarrh in which there were asthmatic seizures, he had used it with a very good effect. The remedy relieves the engorgement of the bronchial mucous membrane and thereby renders the patient less liable to asthmatic seizures.

Dr. Frank Glasgow remarked on the difficulty of determining whether such a case as Dr. Bremer's is one of hysteria or not. There are cases which seem to lie on the border between hysteria and organic disease. A girl came down from north Missouri about a year and a half ago to the Sisters' Hospital to be treated for blindness. She was about 18 years of age, healthy in every respect apparently, and complained of nothing except this blindness; she couldn't tell the difference between daylight and darkness and it would come on very suddenly. The first time he looked at her he was suspicious as to her blindness and told her father so. He said he had been inclined to think the same. He had observed her closely and thought she could see better than a person who was totally blind. A well known oculist here examined her with an ophthalmoscope and couldn't make out any thing wrong; but he said she was totally blind; there was no perception of light. Dr. Glas-

gow couldn't agree with him. In spite of all that, however, the pupils certainly didn't contract when light was thrown on the retina by the lens. Sometimes the pupils were dilated and sometimes they were not. There was some little uterine sensitiveness and some inflamation of the cervix, some erosion and a slight leucorrhea,—cervical catarrh, but that was a very slight trouble and he couldn't believe that it was the cause of the blindness, and it was not treated. After she had been in the hospital for some time, she acquired a fever and her symptoms took a typhoid form, and at one time it looked as if she was going down hill very rapidly. This didn't last more than ten days; the fever was continuous and various. During the continuance of the fever she got an idea that she couldn't talk, and she curled her tongue up in the roof of her mouth and wouldn't utter a word. She was getting better from the fever, and, after a little, concluded that she would talk. She went on this way and wouldn't admit that she could see except one night when she got tired and wanted to go home and pretended she was going to throw herself over the railing on the porch. They were very much frightened about it out at the hospital, and although told that there was no danger of her doing so, they insisted on sending her home. Two weeks afterward she recovered her sight on hearing a band of music on the street.

Dr. Hermann said certainly hysterical cases have been observed which presented the same blindness. Atrophy of the muscles does not usually occur in hysterical patients; they generally preserve the rotundity of their limbs, and, although the hysteria may continue for years, there is no real atrophy of the muscles, no reactive degenerative effect. That is one of the symptoms by which we differentiate a case of hysteria from an organic atrophy of the muscles. We certainly have real atrophy of the muscles and paralysis developing after diseases of the brain, in those cases we have weakness developing in the lower extremities with increased tonicity of the muscles. He asked the doctor whether there was such a state of things in Dr. Bremer's case, any spastic conditions?

Dr. Bremer said there was no spastic condition, no cerebral disease with the exception of the delusions.

Stated Meeting, April 6, 1886.

FOREIGN BODIES IN UTERUS.—CRIMINAL ABORTION.

Dr. Fry said that he had been called to see a woman who had aborted. Several days after the accident she told him that she felt something pinching her. He introduced his finger into the vagina and removed a piece of wire about an inch long, which was wedged between the neck of the womb and the wall of the vagina so that it was not easily removed. Passing the finger around the neck of the womb and through the vagina, he detected nothing, but the next day she said that there was something else there. In the upper part of the vagina he found another piece of wire and removed it. After that he made a very thorough examination and there was no more wire in the vagina; but the second or third morning afterwards she said there was something else sticking her, and on examination he found the largest piece of all. Two of these pieces of wire had cotton firmly fastened into the hooked part and wrapped around it as though for making an application inside the womb, and they also showed evidences that a portion of the wire had been cut off. The first specimen looked as if it might have been twisted off. She finally admitted that she had visited an abortionist at four different times and that each time he manipulated a good deal, the first time particularly, using a bivalve speculum. She was conscious that he used scissors and cut something, she had no idea what. These specimens show the manner in which these people proceed. She stated that at the time of the abortion there was a larger piece of wire than any of those which came away. She was probably about two months pregnant.

Dr. Todd asked if Dr. Fry thought from what he had seen or heard that abortion is getting to be more common; if more of these fellows are in the market, so to speak, than they used to be?

Dr. Fry said he was certain of it, that within a week he had attended two woman who had had abortion committed on them. One significant fact would show the prevalence of the practice and the number of people engaged in it. He had been told that the prevalent fee for committing an abortion is $5. There must be considerable competition to reduce the fee to that. He was satisfied that there are a number of men, and knew the names of some of them, who are doing this thing for $5. This woman told him, for instance, that she had been to see this man four times (and the pres-

ence of so many pieces of wire there evidenced that she had been to see him a number of times) and that he only charged her $5 altogether.

Dr. Leete said it seemed to him that where the chain of evidence was complete, it would have a good effect on public morals to draw the attention of the grand jury to the case and make a public example of one of these harpies. He was well satisfied from his own personal observation, that in quite a percentage of those applying to have an abortion produced, when the enormity of the crime involved is properly laid before them, they will be deterred from taking a further step. Within the first four years of his living in St. Louis, he was applied to about twelve times, and the majority of the women from their dress, had an abundance of means at their command, so they were not trying to kill their unborn children by the pressure of poverty. Sometimes they would come with very curious pleas, giving the names of old physicians of the highest respectability as quite ready to do this sort of work, and the only reason they assigned for having applied to him [Dr. Leete] was that the other physician was out of the city. These names of course were mentioned to try and induce him to change his determination. Only one seemed to be in such a condition of poverty that it was a reason why she desired not to have any more offspring. A majority of these women confessed that the reason for wishing to have the abortion produced, was to save them the worry and care of children. If a case could be clearly made out against any of these harpies who stand ready to do this sort of work for five dollars a head, he thought that a wholesome lesson would be taught. would not be remembered for a very great while, butit would have a good effect for the time being at least.

Dr. Fry noted the fact that we so often hear, that this sort of practice is imputed to men who stand high in the profession. It seemed to him that facts contradict such charges. He was convinced that no one who engages in this sort of business can keep it quiet for a very long time: it will come to light and especially will it become known to the members of the profession, and certainly to the women. It is surprising to know how rapidly information of this kind is diffused among the women. The fact that so many people do this business proves that it is not being done by the regular respectable portion of the profession.

Dr. Leete agreed with Dr. Fry in this and believed these state-

ments referred to as made by these women were untrue and were made for the purpose of inducing him to change his determination and produce the abortion.

Dr. Ford read a paper on Catheter Fever. (Vid. p. 481).

Dr. Todd said it had occurred to him while the doctor was describing the location of the point of origin of catheter fever that that was in the neighborhood of the ejaculatory ducts, and knowing how very sensitive the genital apparatus is to pressure, that the irritability of those localities again might be intensified possibly by some disturbance of the genital apparatus. He asked if that could possibly cut any figure in any of these cases, whether, for instance, in examples where the urethra was perfectly healthy and yet these serious results took place, this hyperesthetic condition might not be greatly intensified by some condition of the ejaculatory ducts and testicles.

Dr. Ford said that was the view he took of it. It was very questionable whether until the last ten or twenty years, since Sir Henry Thompson began to teach the delicacy and sensitiveness of the urethra this was very much appreciated. Formerly very little care was used in the introduction of the catheter. If it did not pass easily it was a common practice to force it in; and but little attention was paid to handling it gently. The sensitiveness of the parts was not appreciated at all, consequently there were irritations and disturbances of the deep urethra which the patient hardly felt, but which nevertheless existed. He himself had frequently found in passing the catheter irritations of the deep urethra which nobody would have suspected. A gentleman came from the country lately suffering with incipient melancholia. The urinary organs were healthy, but on passing into the bladder a perfectly smooth steel sound grooved on its side such as is used in the operation of lithotomy, and removing it, he found the groove filled with blood. He had introduced the sound so carefully that it was not possible to have produced any injury, so that he was satisfied there was an abnormal condititon of things there which was not suspected. By adopting appropriate treatment and sending him home with directions how to continue the treatment, he is very much improved. In the majority of these cases of melancholia, probably some prostatic inflammation is the cause of the trouble.

TRANSLATION.

FUNGOID MYCOSIS.

BY PAUL LE GENDRE.

[TRANSLATED BY DR. JOSEPH GRINDON, ST. LOUIS.]

We have here to do with an affection which, although comparatively rare, should be known to every physician, whether he be a dermatologist or no, who is interested in general pathology and nosology. It has, in fact, stimulated the curiosity of observers of the first rank whose opinions have met and clashed in this narrow corner of dermatology as in an inclosed arena, so that the history of the investigation of fungoid mycosis becomes one of the episodes of the great struggle between doctrines in pathogeny which characterizes our epoch.

Although the study of fungoid mycosis was not taken up until within the last fifty years, it has given rise to a large number of monographs and clinical investigations, and it would be a difficult matter for us to obtain a clear insight into the subject without the light furnished us by several excellent guides whom we shall here refer to.

In 1881, MM. Ernest Besnier and Doyon presented what was then a very complete résumé of the subject in one of the notes which they added to their translation of Kaposi's book, which notes are often more valuable, and in any case more useful to the practitioner than the text.[1]

But a new element having appeared in the etiological problem within the last few years, MM. Vidal and Brocq published a review of the subject in 1884.[2]

Quite recently, again, M. H. Hallopeau, a physician of the Hôpital Saint-Louis, has given us a general review in which criticism has not, as too often happens, been buried under erudition, and in

1. *Traité des maladies de la peau*, t. II., p. 143.
2. *France médicale*. 1884.

which the actual state of the question is presented in a very precise manner.[1]

I.

The word mycosis was coined by Alibert; it was applied as a generic title to a group of rather dissimilar cutaneous affections having as a common characteristic their general resemblance to fungi. About 1833 he described more particularly, under the name of Fungoid Mycosis, an affection of the skin, which then underwent another period of neglect, until Bazin, in 1862, and Guérard, his pupil, in 1863, made it the subject of more complete descriptions.

But the questions as to the nature of fungoid mycosis could only be handled by histologists. It is as a result of M. Ranvier's splendid investigation that the French school considers fungoid mycosis until now as a cutaneous lymphadenoma, while in Germany, after being long considered as a sarcoma, it has quite recently been declared of parasitic origin.

The solution of the typical form of fungoid mycosis may be divided into two periods.

During the first there are no tumors, and the skin is attacked only by some very superficial and multiform lesions. This period comprises a hyperemic and an exudative stage. There first appear, more or less deeply colored, isolated or confluent, flat or barely raised *erythematous spots* which are soon covered with furfuraceous or lamellated scales. These are sometimes accompanied with a sense of itching or burning, when they may be complicated by nail-lesions. Sometimes the eruption presents the appearance of a slightly oozing *eczema* or of the wheals of *urticaria*. These various lesions following each other in crops may alternate with *papular* or *vesicular lesions*. To the macules of the first stages there succeeds, after some time a thickening of the skin in the shape of *lichenoid patches*, having a rugous and mamellated surface, which were at one time classed with lichen hypertrophicus. The development of these patches may suffer remissions, may even undergo retrocessions. They may decrease in size, disappear at the sites primarily affected and reappear elsewhere. The general health is usually but little affected at this time. Weakness, anemia and digestive disturbances are the only symptoms to be made out during the first period.

1. *Revue des sciences médicales de Hayem*, Oct. 1885.

The second period may be considered as commenced when there appear excrescences, the site, shape, size and appearance of which are subject to very considerable variations, but which, however, make it possible to recognize this affection which in the two first stages one could hardly have suspected the existence of. These *mycosic tumors* develop either at the site of lesions of the foregoing stage, or on previously unaffected portions of skin. They may be seen on all parts of the surface, on the scalp, face, trunk and extremities, mammæ, hands and fingers. On hairy regions they eventuate an early loss of the pilous appendages. They are of firm consistence and of a smooth surface; their color varies from reddish to livid. The more voluminous, possessing this particular hue, sometimes have the appearace of ripe tomatoes. They are firmly connected to the skin and move with it. They are neither painful nor tender, they are even at times analgesic.

The progress of mycosic tumors is a capricious one. Some, after having grown for several months, come to a stop, undergo involution, and finally sink down and disappear; others ulcerate, now at the centre, now about the periphery. These ulcerations are often superficial losses of substance which secrete but slightly. Sometimes a tumor, after affording fluctuation, will present true abscesses.

The advent of the period of ulceration is accompanied by an alteration of the patient's general condition which may become so marked as to constitute a cachexia, or, on the other hand may suffer remissions or prolonged interruptions.

MM. Vidal and Brocq have admitted the existence of a second variety of fungoid mycosis in which the changeful and capricious features of the type just described, which are to be found as well is the period of congestive erythemas and lichen-like patches as in that of the mycosic tumors, do not exist. In this second variety there is no eczematiform or lichenoid stage, but well-defined *tumors*, few in number, are developed *from the first*. For these reasons certain dermatologists refuse to class them with fungoid mycosis, failing to see how they are to be differentiated from sarcoma, either clinically or microscopically.

The histological study of fungoid mycosis which dates from the researches made by M. Ranvier, and published in 1868, by Gillot, a pupil of Hillairet, has kindled a conflict between diverse opinions as to the nature of this singular malady. M. Ranvier had unhesi-

tatingly relegated fungoid mycosis to the class of *lymphoid* tumors. He found them to possess, in fact, the following characteristics. Very numerous white corpuscles, either isolated or agglomerated in such a manner as to separate the connective-tissue fasciculi of the derma were circumscribed by a lymphatic net-work. The adenoid mycosic mass is furrowed by capillary vessels. Analogous products have been seen in the subcutaneous ganglia, in the brain, the lungs, the intestinal follicles and ganglia of the thorax and abdomen. Ranvier's opinion, since confirmed by the investigations of Debove, Landouzy, Malassez, finds its fullest expression in an article by Demange (*Annales de Dermatologie*, 1874), in which fungoid mycosis is distinctly set down as a lymphadenitis. According to these views, mycosis would then be a *dermato-lymphadenoma* (as Besnier and Doyon have it); it would be the lymphoma or lymphadenoma of Virchow, producing in the skin an affection identical with that of the adenitis of Trousseau (Vidal, London Congress), and Galliard claims for cutaneous lymphadenitis the right to a place in the nosology.

II.

In Germany, on the other hand, an opposite movement has taken place.

Koebner classed fungoid mycosis with fungoid papillomatous tumors. Geber (1878) designated it as inflammatory fungoid neoplasm of the skin, and Kaposi makes it a *sarcoma of the skin.*

The German observers did not make out an adenoid structure in all the mycosis tumors examined. Besides, in a case of M. Vidal's the microscopical examination, made by H. Liredey, revealed sarcomatous elements co-existing with those of lymphoid tissue. There were even presented together several varieties of sarcoma, embryonal, fasciculated, myo-sarcoma, the divers kinds of reticulated tissue to be seen in adenoid tumors.

One can easily understand how, having these and similar facts in view, Geber and Koebner considered the adenoid tissue simply a phase in the evolution of the neoplasm.

Besides, those who oppose the theory of Ranvier and Gillot do not admit that the presence of a reticulated stroma in a cutaneous tumor is sufficient to characterize it as a lymphadenitis. The alterations of structure undergone by a tissue in a given disease are not of themselves sufficient to determine the nature of that disease.

If we were always to rely exclusively on the former to indicate the latter, we should confound syphilis, tuberculosis and glanders, for instance, since from the histological point of view, and setting aside the bacillar element, all three of these diseases may occasion nodular formations; we must also bear in mind the cause and localization of the symptoms.

Further than this, the absence of leukæmia, of generalized glandular hypertrophy and of hypertrophy of the spleen in the persons of those suffering from this complaint, as well as the retrogression and even possible disappearance of mycosic tumors, have been cited as arguments opposed to the lymphadenitic nature of fungoid mycosis; the last named phenomenon presenting a striking contrast to the fatally progressive march of general glandular lymphadenitis.

III.

After the view that mycosis is a lymphadenitis and after that which connects it with sarcoma, a new doctrine, one which threatens to absorb all pathogeny, the *parasitical theory*, appeared on the scene. Virchow classes fungoid neoplasms among granulomas. And Auspitz, in Ziemssen's treatise, describes the tumors of mycosis under the title of fungoid granulomata, side by side with tuberculosis, lepra, syphilis and rhinoscleroma.

Is was natural that such an association of ideas should give rise to the conception of the infectious nature of mycosis, and, in fact, the recent observations of Auspitz and Rindfleisch, to which we are introduced by H. Hallopeau, seem to establish that the lesions of mycosis possess a distinct characteristic of definite value in the presence of a micrococcus.

The patient who furnished the subject of Auspitz' clinical investigations, after having had a chronic eczema, noticed the development fungous tumors having much the appearance of mushrooms or strawberries. These tumors were examined under the microscope by Hochsinger, who stated that "between the broad connective tissue fasciculi was to be another similar tissue, but of more recent formation, consisting of fibrillæ containing large numbers of round, fusiform or epithelioid cells." Then after the use of the different methods of staining, which serve in detecting micro-organisms, there appeared "innumerable cocci, packed one against the other, and so distinct of outline that they appeared like a bed of mush-

rooms." These cocci, measuring from .9 to .15 μ are grouped into diplococci or streptococci of from three to five individuals.

"The absence of enveloping capsule or zooglea, the rounded outlines and uniform size of these cocci, serve to differentiate them from those found in other maladies. The micrococci penetrate into the round and epithlial cells as well as into hair-follicles and even into the hairs themselves. They are also met with in the superficial scales of those cases which apparently show nothing more than eczema—an important fact, proving as it does, that the comparatively slight initial lesions already possess the essential elements of the disease." Schiff succeeded in cultivating the micrococcus seen by Hochsingser, and having inoculated a kitten with some of the culture-product, the same elements were found in the local lesion thus produced. The demonstration is thus complete.

The description given by Rindfleisch of a streptococcus which he also found in fungoid mycosis, differs from that of Auspitz inasmuch as the latter observed the micrococci more particularly in the interstices of the tissue, while Rindfleisch only saw them in blood-vessels, where colonies of them form obliterating masses, which serve as foci for all future lesions. These micrococci are also found in the capillaries of the liver and lungs. In the skin "by obstructing the circulation, they occasion an accumulation of white corpuscles, infiltrating into the superficial portion of the derma, where the vascular loops to the papillæ are given off. Sometimes the infiltration of white corpuscles extends even into the lower layers of the cutis and sub-cutaneous connective tissue." From this process result neoplasmata of nodular conformation the occasional retrogression of which may be explained "by the fact that the colonies of streptococci have abandoned those vascular areas about which were collected the white corpuscles."

"*To sum up the matter*," says M. Hallopeau, in terminating his very lucid exposition of Auspitz' and Rindfleisch's very interesting researches," *we have here a specific inflammation comparable to that of tuberculosis, of lepra or of syphilis.* If the neoplasmata present some analogy to sarcomata, it is merely because their anatomical substratum is the same, and tissue elements react and undergo modifications only after certain methods. The essential difference between these affections is to be found in their *etiology.* It would seem to be already established *that the typical form of mycosis owe as its particular cause the presence of micrococci in the integ-*

ument. In view of the high standing of the two authors who have discovered them, of the identity of characteristics which they attribute to them, and of the accumulation of these organs in the parts most profoundly affected, there seems hardly to remain room for doubt as to this point." M. Hallopeau hopes that, thanks to the existence of these microbes, we shall soon know whether fungoid tumors appearing as such from the first, without a preceding eczematous or lichenoid phase, should be classed with mycosis, and whether there really exists any connection between mycosis and leukemia.

The critic who is not sufficiently versed in dermatology to enter upon a discussion as to the nature and etiology of fungoid mycosis, should limit his ambition to the putting on record of the work of those eminent specialists, who, in France and Germany, have constituted themselves the champions of the great questions of general pathology, and who do combat on the field of dermatology, and should be to the practitioner an echo of their instructive struggle.

ACCOUCHEMENT OF A TURKISH PRINCESS.—DR. J. A. S. GRANT was called upon to attend a Turkish Princess in confinement, she having heard that he would administer chloroform. Everything connected with the delivery passed off successfully and it was considered a most auspicious introduction of chloroform, and medical men into the harems for confinements.—*Alb. Med. Annals*, May, 1886.

WILLARD INSANE ASYLUM, the central asylum for chronic insane cases in New York State, and which has now more than eighteen hundred insane patients has reduced the per capita charge to the counties to $200 per week, thus supplying the best of care at a minimum cost to the tax-payer. The cottage plan of house construction is in vogue at Willard's.

GAMBETTA'S BRAIN weighed only 38.4 ounces. The third frontal convolution was developed to a high degree and the fissures were numerous and complicated.

COMMUNICATIONS.

PRAIRIE ITCH.

PAWNEE CITY, NEB.

EDITOR COURIER:—In your last issue is a letter from Dr. Hardaway in regard to that prevailing itching—prairie itch, eczema or whatever it may be.

Having had quite an extensive experience with this disease as it appears in this vicinity, and having observed quite carefully some of its characteristic features, I desire to give you the benefit of that experience and observation. I am quite satisfied upon several points relative to the disease in question: 1st. That it is contagious. 2nd. That it is due to a parasite. 3rd. That the disease as it appears here, and as it has appeared here during the last four or five years, is not scabies.

This part of the country, South Eastern Nebraska, has been tormented with this disease for three or four years past to an extent annoying to the people and perplexing to the physician. No portion of the community has been entirely exempt. Those in high estate have not immunity from the disease. The rich and poor meet together on common ground and scratch.

In over fifty cases have I been able to satisfy myself that the disease is contagious. A few cases will serve to show this connecting link. A young lady aged 18 years, in well to do circumstances and good habits, no history of skin disease, was teaching school away from home, coming home on Friday evening and remaining until Monday. During the stay at home would have for a bed-fellow a little girl two and a half years old. The young lady began to complain of itching with slight manifestations of "breaking out" on arms and portions of the body, came to me for relief. I found small points sometimes vesicular disseminated on arms and neck, none on the hands. I prescribed hydrg. oxid. rub., zinc. oxid. aa. grs. xxx to ounce of vaseline with gtts. 15 of carbolic acid. Also baths of soda water used as hot as could be borne prior to

application of the ointment. Shortly after this the little girl before mentioned who had occupied the same bed with the young lady was brought to my office with a typical eczema on arms, hands and about the shoulders, worse where the clothing had rubbed. The same treatment was given except the strength of the carbolic acid and the mercurial was reduced. The baby eight months old, sister to the last was the next victim: then the parents followed in such regular military order, that the only conclusion possible was that the disease was contracted by the teacher at school, communicated to the little girl with whom she slept, then to the babe and by it to the parents.

This is only a sample of a tracing followed in many cases, which experience has been repeated over and over again in the last few years.

As to the second point, that the disease is due to a parasite or germ, I conclude that this is the case from the fact that it seems to be transmitted by actual contact (contagious.) And several times have I been able to verify this by the disease beginning on those parts which were exposed. I do not have a microscope, but it seems to me that some one possessed of the opportunity for microscopic examination, might do us a lasting benefit by using the instrument on some of this breed, thereby aiding the profession in corralling them.

On the third point I need only make the statement that none of my cases have been scabies. I do not see how it is possible for a careful physician to mistake scabies. This disease has nothing in common with scabies except the itching.

As to the treatment, the preparations of mercury, the red and white precipitate with oxide of zinc and carbolic acid are the remedies which give the best results in my hands. I have also used mercury bichloride in solution, 5 grs. to the ounce, but the remedies in the form of ointments are better.

Most of these persons give sulphur ointment a thorough trial before applying to a physician, but in no case have I known any good to follow the use of sulphur. I have frequently in protracted cases given arsenic internally, but more to satisfy the patient who wanted to take something for the blood, than for any real good result on the disease. I think all these case can be cured by topical applications systematically and thoroughly used.

A remarkable feature of the disease as it has appeared here, is

its resemblance to eczema. I think in every case that I was permitted to follow up, during the course of the disease, on portions of the body it has exhibited the characteristic physical appearances of vesicular, papular or squamous eczema. After irritation of the skin by scratching a form of dermatitis of course results, but many cases have the appearance of eczema from the beginning. I do not pretend to say what the disease is, but I am firmly convinced of the truth of the points given you above. Yours,

A. B. ANDERSON, M. D.

THE OFFICERS OF THE AM. MED. ASSOC. FOR 1887 are the following: President, E. H. Gregory, of St. Louis Mo.; Vice-Presidents, E. H. Miller, Minn., W. B. Welch, Ark., W. H. Pancoast, Pa., W. C. Wile, Conn.; Perm. Sec'y, W. B. Atkinson, Pa.; Assist. Sec'y, J. N. Hyde, Ill., Treasurer, R. J. Dunglison, Pa.; Librarian, C. H. A. Kleinschmidt, Washington, D. C.

A. P. H. A.—The meeting of the American Public Health Association to be held in October next, will be at Toronto, Canada. The Committee of Arrangements is already making good progress in securing facilities for a large and profitable meeting at that time. The work of this Association has been exceedingly valuable, and is of interest to every physician.

AMERICAN MEDICAL EDITORS' ASSOCIATION.—The officers for the ensuing year are Drs. J. V. Shoemaker, Philadelphia, President; Dudley S. Reynolds, Louisville, Vice-President; Wm. Porter, St. Louis, Secretary. The Association was handsomely entertained at the St. Louis Club House by the Medical Press and Library Association.

TINCTURE OF THE CHLORIDE OF IRON may be disguised by administering it in sweetened milk, and so administered will not hurt the teeth. This is Dr. Saundby's suggestion.

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